

Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2018

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1 Introduction

This report summarizes data collected as part of the Massachusetts Water Resources Authority (MWRA) combined sewer overflow (CSO) receiving water monitoring program, and is produced in accordance with the variance for CSO discharges to Lower Charles River/Charles Basin and the variance for CSO discharges to the Alewife Brook/Upper Mystic River. The Massachusetts Department of Environmental Protection (MADEP) issued those initial variances in October 1998 and March 1999, respectively. In August 2016, MADEP extended the variances through August 31, 2019. This monitoring summary is submitted pursuant to the variance conditions and provides an assessment of water quality in the Charles River, Upper Mystic River, and Alewife Brook, which were affected by some of the 35 CSO projects in MWRA's Long-Term CSO Control Plan (LTCP), and are affected by any remaining CSO discharges.

Receiving water quality results in the report reflect the changes in the monitoring program made by MWRA in 2016 and 2017; in short, a switch to more storm-based sampling with the addition of weekend sampling to close temporal data gaps. Sections 2.1.1 and 2.1.2 describe this in more detail. An important consideration when looking at the data – especially data that is not aggregated by rainfall condition (e.g., Tables 3-6 and 4-6) – is that considerably more post-storm, wet weather data was gathered in 2018 than previously. This is reflected in, especially, Table 4-4, which breaks down visits to the sampling stations in the Mystic River and Alewife Brook by rainfall condition. More wet weather data means more samples with higher counts of indicator bacteria, which can skew some results and trends. Where MWRA believes that the more extensive wet weather sampling has biased the data, it is noted. Finally, where the data is broken down by rainfall category, most rain data now comes from more local rain gauges rather than the Logan Airport gauge. This will hopefully provide more spatially accurate rainfall data, rather than using a single rain gauge that can be several miles distant from some of the sampling locations.

As part of the Boston Harbor Case (U.S. v. M.D.C., et al., No. 85-0489-RGS), MWRA developed and implemented its LTCP, which addresses CSO discharges from CSO outfalls hydraulically related to the MWRA sewer system and member community sewer systems, consisting of 35 CSO control projects, the last of which was completed in December 2015. Pursuant to the federal court order in the Boston Harbor Case, MWRA must perform a three-year CSO post-construction monitoring and performance assessment from January 2018 to December 2020 and submit the results to the United States Environmental Protection Agency (EPA) and the MADEP by December 2020. MWRA commenced its three-year CSO post-construction monitoring and performance assessment in November 2017. The goal of the MWRA's three-year CSO post-construction monitoring and performance assessment is to demonstrate that MWRA has achieved compliance with the levels of control (including as to frequency of CSO activation and as to volume of discharge) specified in its LTCP. In 2006, MADEP agreed, as part of the Boston Harbor Case, to issue a series of three-year variance extensions through 2020 with no additional CSO obligations and related construction activities beyond the then-approved LTCP to allow MWRA to complete implementation of its LTCP and three-year CSO post-construction monitoring and performance assessment.

Conditions in the current CSO variance extensions require MWRA to implement the LTCP in compliance with the federal court order in the Boston Harbor Case. Additional conditions require MWRA and the

municipalities with CSOs discharging to variance waters (Cambridge and Somerville¹) to continue to implement the Nine Minimum Controls of EPA's National CSO Control Policy, and require all of the CSO permittees to report estimated CSO discharge frequencies and volumes from their respective outfalls to these receiving waters on an annual basis. MWRA is also required to continue its receiving water quality monitoring program and submit an annual report to MADEP and EPA assessing the impacts of CSO discharges. This report is submitted pursuant to the latter requirement.

Since the beginning of MWRA's CSO control planning efforts in the late 1980s, MWRA and the CSO communities have eliminated or virtually eliminated (i.e., achieved 25-year storm level of control) CSO discharges at 40 of the 84 outfalls addressed in the LTCP. The completion of the CAM004 Sewer Separation project in December 2015 closed the last of the 34 outfalls recommended for closure in the LTCP. MWRA and the CSO communities have also greatly reduced CSO discharges at the 45 outfalls that will remain.² Along the Charles River, ten CSO outfalls were closed and eight untreated and one treated CSO remain active. Along the Alewife Brook, seven CSO outfalls were closed and six CSOs remain active. Along the Upper Mystic River (Mystic Basin), two CSO outfalls were closed and one treated CSO (MWRA's Somerville Marginal facility) remains active. The Somerville Marginal facility discharges at outfall MWR205 below the Amelia Earhart dam in marine waters when not restricted by the tide. When the tide is high and restricting discharge at MWR205, flow is discharged to the Mystic Basin at outfall MWR205A by the Route 28 bridge. Outfall BOS017 also discharges to marine waters below the dam. MWR205 and BOS017 do not discharge to the variance waters.

Since the early 1990s, major MWRA system improvements, such as the upgrade of the Deer Island Treatment Plant, transport system, and the completed CSO projects, have reduced the frequency and volume of CSO discharges and have resulted in increased treatment of remaining discharges. The LTCP is predicted to reduce region-wide CSO discharge volume in a Typical Year³ from 3.3 billion gallons in 1988 to 0.4 billion gallons, an 88% reduction, with 94% of the remaining discharge volume receiving treatment at MWRA's four CSO treatment facilities. Figure 1-1 shows the estimated CSO flow reduction system-wide since 1988, and Figure 1-2 shows the CSO flow reduction by receiving water. For purposes of this report, receiving water quality data for the past 5 years (2014-2018) is considered representative of current conditions (noting however that some projects have been underway and completed during this period).

¹ Boston and Chelsea also have community CSOs, but they do not discharge into waters covered by CSO variances.

² In addition to the 34 outfalls recommended for closure in the LTCP, Boston Water and Sewer Commission (BWSC) has closed outfalls BOS006 and BOS007 in East Boston and outfall BOS072 in the Fort Point Channel; the City of Cambridge has, since 2007, temporarily closed outfalls CAM009 and CAM011 along the Charles River pending the results of a long-term hydraulic assessment; and the City of Chelsea closed Outfall CHE002.

³ Typical Year rainfall was developed by MWRA in 1992 using a 40-year rainfall record and was approved by EPA and DEP as a basis for measuring the performance of CSO control alternatives and the water quality impacts of remaining CSO discharges. Level of CSO control in the Typical Year is a key performance objective of the LTCP.

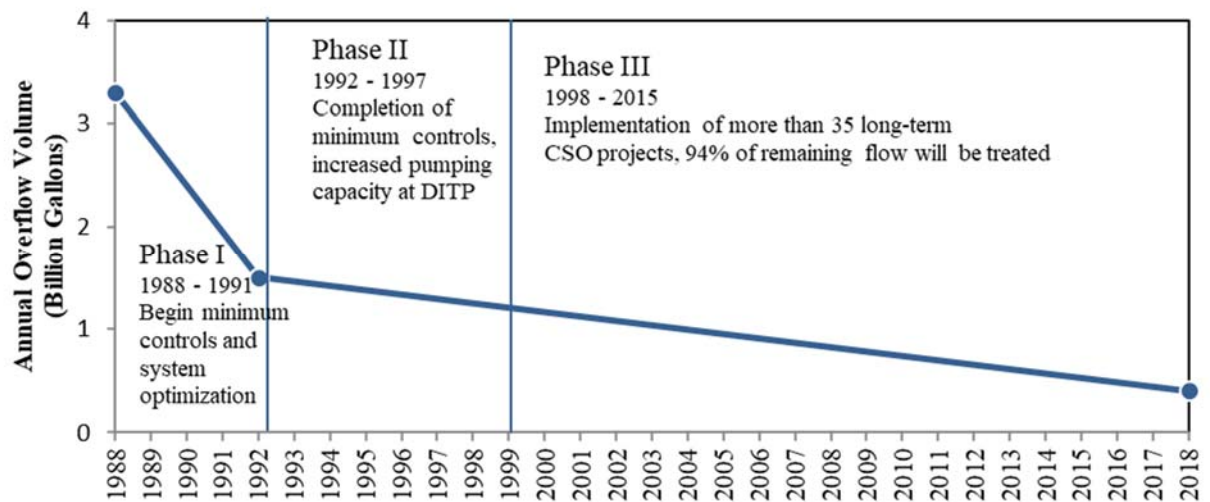


Figure 1-1. Estimated CSO flow reductions, 1988 – 2018.
Source: Updated from MWRA (2018)

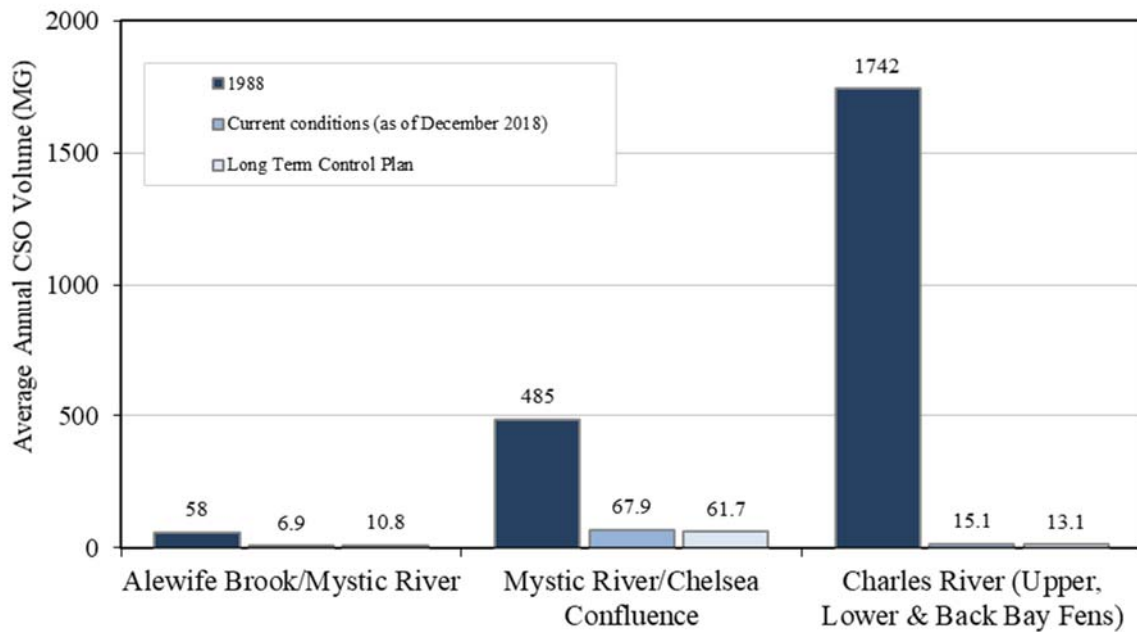


Figure 1-2. CSO Typical Year Discharge Volume Estimates for 1988, Current, and Approved Long Term Control Plan
Source: Updated from MWRA (2018)

Rainfall volumes for calendar year 2018 at various gauge locations in the MWRA service area and comparison to MWRA's approved Typical Year appear in Table 1-1. The table summarizes the frequency of rain events within selected ranges of total rainfall for 2018. The 2018 rainfall totals were much higher than the Typical Year and approximately 10 inches higher than the official average annual rainfall for the Boston area (43 inches). Numbers of storms were higher than the Typical Year at all gauges, with most of these

additional storms in the 0.5 – 1.0 and 1.0 – 2.0 inch categories. All gauges recorded at least twice the number of Typical Year 1.0 – 2.0 inch storms (8). Large storms – those greater than or equal to two inches of rainfall – occurred fewer times in 2018 than the Typical Year. (Refer to Tables 3-3 and Table 4-3 for CSO discharge estimates for the Charles and Mystic, respectively.)

Table 1-1. Comparison of rain event frequency by rainfall volume, 2018 rainfall vs. Typical Year.

	Total Rainfall (in.)	Total Number of Storms	Number of storms, by rainfall volume				
			<0.25 inches	0.25 – 0.5 inches	0.5 – 1.0 inches	1.0 – 2.0 inches	≥2.0 inches
Typical Year	46.8	93	49	14	16	8	6
2018 Chelsea Creek Headworks (MWRA)	54.54	107	53	16	18	16	4
2018 Ward St. Headworks (MWRA)	55.81	104	50	13	21	17	3
2018 BWSC Charlestown	50.94	101	44	18	20	16	3
2018 BWSC Allston	53.51	103	46	18	20	16	3
2018 Fresh Pond (USGS)	52.25	103	47	16	21	17	2

Source: MWRA (2019)

1.1 Overview of the monitoring program

MWRA’s CSO receiving water quality monitoring program has been ongoing since 1989, with most sampling locations continuously monitored since 1991. All harbor and tributary areas affected by CSOs in Boston, Chelsea, Cambridge, and Somerville are included in the monitoring program. For most sampling locations included in this report, at least 20 samples have been collected each year.

1.2 Organization and purpose of the report

Chapter 2 presents the materials and methods used in monitoring. Chapters 3 and 4 discuss the results of the CSO receiving water quality monitoring program in the Charles River and Mystic River/Alewife Brook, respectively. Water quality parameters examined for each region include: bacterial indicators (*E. coli*, *Enterococcus*, and fecal coliform), dissolved oxygen, water clarity (Secchi depth, total suspended solids), nutrients (phosphate, ammonium, nitrate/nitrite) and chlorophyll.

The purpose of the report is to summarize 2018 water quality in the Charles River and Alewife Brook/Mystic River. The report compares sampling results to water quality standards, and shows spatial and temporal variations in water quality, and differences between wet and dry weather. For some bacterial and physical parameters, data from the previous five monitoring years are analyzed and compared with the 2018 data.

2 Materials and Methods

2.1 *Field and laboratory methods*

2.1.1 Selection of sampling locations

Some sampling locations were chosen for their proximity to CSO discharges and others were chosen to provide representative water quality measurements for a given area. Typically, all samples are collected by boat, but beginning in 2017, existing stations that were accessible from the shore were identified so sampling could continue in inclement, non-boating weather. These stations are also used for weekend sampling (see section 2.1.2 below). Complete lists of stations for the Charles River and the Mystic River/Alewife Brook, including maps and descriptions, appear in Figure 3-1 and Table 3-1 (Charles) and Figure 4-1 and Table 4-1 (Mystic/Alewife).

2.1.2 Sampling schedules

At least 20 station visits were made to each location last year, within two separate monitoring projects described below. Eutrophication monitoring is conducted monthly, year-round, at a subset of river locations, and includes nutrient, chlorophyll, TSS, bacteria, and physical measurements. CSO receiving water monitoring includes bacteria sampling and physical parameter measurements that are collected roughly between April and October. Prior to 2016, this monitoring was conducted in weekly rotations for each region, with efforts made to collect approximately equal numbers of samples in dry, damp, and wet weather conditions. Beginning in the 2016 field season, regions were sampled exclusively in two week rotations, allowing the program to capture data representing the dry weather baseline, wet weather events, and the “recovery” period in the subsequent days after a rain event. Capturing the “recovery” period after storms was given a high priority. The two week rotations are flexible, so they can be shortened or extended to capture storm events or move to a different region to capture a storm event. In 2017, weekend sampling was added to address the data gap that might occur if a storm, or its recovery period, occurred over a weekend. Weekend sampling occurs only at the shoreline sampling locations, and only near-surface bacteria samples are collected. Due to the rarity of discharges from the Cottage Farm facility, sampling in the Charles River following discharges from the facility is given high priority. Sampling was conducted in the Charles following all four Cottage Farm discharge events in 2018.

2.1.3 Sample collection

At all locations, water samples and water quality measurements were collected near-surface (approximately 0.1 meter below surface). Surface samples were collected by grab into rinsed sample containers. Bottom samples were collected at locations with a water depth greater than 3 meters, using a Kemmerer sampler or alpha bottle at 0.5 meter above the sediment surface. Bottom water quality measurements (physical measurements such as dissolved oxygen, temperature, and salinity) were made at most locations regardless of depth, but some upstream locations are too shallow for separate bottom readings. Separate sampling containers were used for bacteria, nutrient, and total suspended solids (TSS) analyses.

2.1.4 Field measurements

Field measurements were made with different instruments over the course of the monitoring program. Table 2-1 lists the instruments used and the variables measured.

Table 2-1. Field measurements.

Variable	Instruments used
Temperature, conductivity/salinity, dissolved oxygen, turbidity, pH	Hydrolab Datasonde 4 (1997 - 2008) Hydrolab Datasonde 5 (2006 - 2008) YSI 600XL for temperature, conductivity, dissolved oxygen (1999 – 2013) YSI6600, YSI6820 (2009 – March 2019) ¹
Secchi Depth	Wildco 8-inch limnological Secchi disk (upstream of dams) Wildco 8-inch oceanographic Secchi disk (marine waters)

¹ Instruments switched to YSI EXO2, EXO3 in April 2019.

2.1.5 Rainfall measurements

Most analyses or narrative text include 15-minute rainfall data from rain gauges throughout the region which may be more local to CSO outfalls and/or monitoring locations: Ward Street (MWRA); Allston and Charlestown (BWSC); and Fresh Pond (US Geological Survey). These data are also stored in the MWRA's Environmental Monitoring & Mapping System (EM&MS) database. Daily rainfall measurements were taken from the National Weather Service (NWS) rain gauge located at Logan Airport in East Boston, as this was considered the most representative location for the entire monitoring area. Results from this gauge are reported in one-day intervals. Data are downloaded from the NWS website and stored in the EM&MS database.

2.1.6 Laboratory analyses

Samples were analyzed at the MWRA Central Laboratory. For enumeration of bacteria, chlorophyll, nutrients, and TSS, MWRA Department of Laboratory Services (DLS) Standard Operating Procedures are followed.

Detailed laboratory methods with quality assurance and quality control procedures are described in the Central Laboratory Quality Management Plan (MWRA 2009) and the DLS Standard Operating Procedures (MWRA various).

Table 2-2 lists the analytes measured and methods used in the monitoring program. MWRA discontinued *E. coli* monitoring at marine locations in 2007 due to methodological concerns with the use of the Colilert method for marine samples, replacing *E. coli* with fecal coliform.

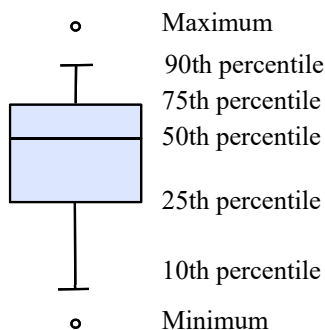
Table 2-2. Laboratory measurements.

Analyte	Method
<i>Enterococcus</i>	Standard Methods 9230C 2c, membrane filtration (for samples collected 1996 – 2003) EPA Method 1600 (for samples collected 1999 – 2007) Enterolert (ASTM D-6503-99; for samples collected 2007 – present)
<i>E. coli</i>	Modified EPA 1103.1, membrane filtration (for samples collected 2000 – 2006) Colilert-18 (Standard Methods 9223B; for freshwater samples collected 2007 - present)
Fecal coliform	Standard Methods 9222D, membrane filtration
Total suspended solids	Clesceri et al. (1998, Method 2540D), using nucleopore filters
Total phosphorus	TP and/or TDP: Solarzano and Sharp (1980a); PP: Solarzano and Sharp (1980a), Whatman GF/F
Phosphate	Murphy and Riley (1962), modified as in Clesceri et al (1998, Method 4500-P F) Skalar SAN ^{plus} autoanalyzer, Whatman GF/F filters
Total Nitrogen	TN and/or TDN: Solarzano and Sharp (1980b), Whatman G/F filters; PN: Perkin Elmer CHN analyzer, Whatman GF/F
Ammonium	Fiore and O'Brien (1962), modified as in Clesceri et al. (1998, Method 4500-NH ₃ H), Skalar SAN ^{plus} autoanalyzer, Whatman GF/F filters
Nitrate+nitrite	Bendschneider and Robinson (1952), modified as in Clesceri et al, (1998, Method 4500- NO ₃ F), Skalar SAN ^{plus} autoanalyzer, Whatman GF/F filters
Chlorophyll <i>a</i>	Acid-corrected (Holm-Hansen et al. 1965) as described in US EPA (1992). Trilogy fluorometer, GF/F filters

2.2 Data analysis

Descriptive Analyses. Indicator bacteria counts are typically log-normally distributed, and therefore a proper measure of central tendency for these data is the geometric mean. Geometric means and their associated 95% confidence intervals were calculated for the measurements made at each station over the sampling period.

Many results are plotted as percentile box plots, as shown in Figure 2-1. These plots present a frequency distribution of a group of measurements. Each box comprises measurements from a single sampling location. Values are shown in Figure 2-1 for the 10th, 25th, 50th, 75th, and 90th percentiles. Open circles at the top and bottom represent maximum and minimum measurements.

**Figure 2-1. Percentile distributions indicated on percentile box plots**

Box plots display the range and central tendencies of the data and allow for easy comparison of the results among stations. The 50th percentile (median) is equivalent to the geometric mean, assuming the data are log-normally distributed.

2.3 *Water Quality Standards used in this report*

Standards are shown in Table 2-3, and include standards and guidelines from the Massachusetts Department of Environmental Protection (MADEP), Environmental Protection Agency (EPA), Massachusetts Department of Public Health (MADPH), and the Massachusetts Division of Marine Fisheries (MADMF). The MADEP standard for Class SB waters (fishable and swimmable) are based on *E. coli* and/or *Enterococcus* counts for freshwater, and *Enterococcus* counts for marine waters, following a USEPA recommendation for *Enterococcus* in marine waters (USEPA 1986). The MADPH issued regulations for beach management based on the USEPA criteria. MADMF uses fecal coliform to monitor shellfish growing waters. MADPH uses Secchi depth to assess water transparency at public bathing beaches and lakes. There are no public bathing beaches in the Charles or Upper Mystic/Alewife Brook, but the MADPH standard can still serve as a useful benchmark.

Table 2-3. Water quality standards for Class B and Class SB waters.¹

Designated Use	Parameter	Standard
Inland waters (Class B) warm water fishery Massachusetts waters, MADEP	Dissolved Oxygen	≥ 5.0 mg/L
	Temperature	≤ 28.3°C (83°F)
	pH	6.5 to 8.3 S.U.
Coastal/marine waters (Class SB) Massachusetts waters, MADEP	Dissolved Oxygen	≥ 5.0 mg/L
	Temperature	< 26.7°C (80°F)
	pH	6.5 to 8.5 S.U.
Marine and freshwater primary contact recreation (designated swimming area), MADPH, MADEP	<i>Enterococcus</i>	Single sample limit: 61 counts/100 mL (freshwater), 104 counts/100 mL (marine); Geometric mean: 33 counts/100 mL (freshwater), 35 counts/100 mL (marine)
Freshwater primary contact recreation (designated swimming area), MADPH, MADEP	<i>E. coli</i>	Single sample limit: 235 counts/100 mL (freshwater only); geometric mean: 126 counts/100 mL (freshwater only)
Former standard, primary contact recreation, MADEP (pre-2007)	Fecal coliform	Geometric mean: ≤ 200 counts/100 mL, no more than 10% of samples above 400 counts/100 mL
Restricted shellfishing, MADMF	Fecal coliform	Geometric mean: ≤ 88 counts/100 mL, <10% of samples > 260 per 100 mL
Primary contact recreation, MADPH, aesthetics/transparency	Secchi disk depth	≥ 1.2 meters (4 feet) at public bathing beaches and lakes

¹ All receiving water areas discussed in this report are Class B according to MADEP standards current as of December 2013 (except for Mystic River mouth, which is SB_{CSO}. SB_{CSO} has the same water quality standards as SB except for an allowance for CSO discharges).

From MADEP 2013:

Inland Water Class B: These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of water supply with appropriate treatment (“Treated Water Supply”). They shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.

Coastal and Marine Class SB: These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting with depuration (Restricted and Conditionally Restricted Shellfish Areas). These waters shall have consistently good aesthetic value.

3 Charles River

3.1 Sampling area

MWRA’s sampling area in the Charles River includes the river segment from the Watertown Dam in Watertown downstream to the New Charles River Dam in Boston, near the river mouth. This area, the “Charles Basin” for purposes of this report, is freshwater and designated Class B with a variance for Combined Sewer Overflows by MADEP (with the variance currently extending to August 31, 2019). The river segment is approximately 10.3 km (8.6 mi) long. The New Charles River Dam and locks limit river flow and tidal exchange at the river mouth.

MWRA monitoring locations are primarily located midstream, bracketing CSO outfalls. Boat-accessible locations were also selected near to or downstream of outfalls: at the Stony Brook outlet and CSO (MWR023), the Faneuil Brook outlet and CSO that has since been closed (BOS032, closed in 1997), and downstream of the Cottage Farm CSO treatment facility outfall diffusers (MWR201). For 2018, a new sampling location (station 210) was added directly downstream of CAM017.

For purposes of this report, MWRA’s monitoring area in the lower Charles is divided into three smaller reaches. Sampling locations and CSOs appear in Figure 3-1. Table 3-1 describes the reaches, sampling locations and CSOs within each reach.



Figure 3-1. Map of MWRA Charles River sampling locations.

Table 3-1. MWRA monitoring locations, Charles River Basin.

Reach	Description of Reach	Sampling station	Location Description
Upper Basin (Class B/Variance, warm water fishery)	Watertown Dam in Watertown, downstream to Magazine Beach (near BU Bridge) in Cambridge	012, Watertown *001, Newton 144, Allston *002, Allston *003, Cambridge 004, Cambridge/Allston *005, Cambridge	Watertown Dam at footbridge (upstream of all CSOs) Downstream of Newton Yacht Club (upstream of all CSOs) Faneuil Brook outlet (at BOS032, closed 11/97) Downstream of Beacon St. Bridge (downstream of BOS033, closed 10/96) Downstream of Eliot Bridge, Cambridge side (at CAM005) Between River St. and Western Ave. bridges 10 m off of Magazine Beach
Mid-Basin (Class B/Variance, warm water fishery)	BU Bridge on Boston/Cambridge line to downstream of Longfellow Bridge	006, Cambridge/Boston *007, Cambridge *145, Boston 008, Cambridge/Boston *009, Cambridge/Boston 010, Boston *210, Cambridge	BU Bridge, downstream side (downstream of MWR201) MIT Boathouse, Cambridge side Stony Brook outlet, Boston side (at MWR023) Mass. Ave Bridge, downstream side (downstream of MWR023, MWR018) Longfellow Bridge, upstream side (downstream of MWR021, closed 3/00) Longfellow Bridge, downstream side (downstream of MWR022, closed 3/00) Dock SE of Front Park, Cambridge Pkwy (at CAM017)
Lower Basin (Class B/Variance, warm water fishery)	Science Museum to North Station railroad bridge, near Charlestown.	166, Boston *011, Boston	Science Museum, upstream of old dam (downstream of all lower basin CSOs) Between Science Museum and New Charles River Dam/locks (downstream of all Charles CSOs)

Sampling locations are midstream unless otherwise noted. * indicates sampling location is also a shoreline sampling location.

3.2 Pollution sources

Known CSO sources to the Charles River are shown in Table 3-2; these include nine CSOs, eight untreated and one treated. MWRA's Cottage Farm CSO treatment facility, located immediately upstream of the BU Bridge, screens, chlorinates and dechlorinates CSO flow before discharge, and is the only source of treated CSO discharge to the river. (MWRA's Prison Point CSO facility, located near the Charles River mouth, has

its discharge point on the Boston Harbor side of the New Charles River Dam.) With increases in sewer system capacity and removal of large volumes of stormwater from the sewer system with sewer separation projects, the number of activations at Cottage Farm has decreased over the last two decades. In the late 1990s more than 20 activations annually were common, but in the 2014-2018 period there were only one to three activations annually. As shown in Table 1-1, 2018 was a wetter than typical year, particularly in the frequency of storms with 1.0 – 2.0 inches of rainfall. There were four activations at Cottage Farm in 2018 (10 hours of discharge total), and samples were taken at available river locations for five days after each activation. The Stony Brook/Muddy River outlet near Kenmore Square is a source of contaminated brook flow and stormwater flows to the basin area, as well as infrequent CSO discharges. CSO discharge volumes to the Stony Brook were greatly reduced in 2006 with completion of sewer separation by BWSC.

Table 3-3 shows the MWRA model simulation results for CSOs affecting the Charles River Basin from January 1, 2018 to April 14, 2018. For the balance of calendar year 2018, the results are from the metering implemented as part of the CSO Assessment. Actual CSO volumes and activation frequency are available for the Cottage Farm CSO facility for the entire year.

The receiving water program is designed to capture water quality in all weather conditions. Table 3-4 summarizes the proportion of samples collected in dry, damp, and wet weather. MWRA began to intensively sample storm events in 2017. Due to the rarity of discharges from Cottage Farm, the Charles was repeatedly targeted for storm sampling in an attempt to capture water quality impacts from Cottage Farm. Additionally, since Cottage Farm discharges only in the largest storms, the wet weather sampling in the Charles is mostly of larger storms. This accounts for the large portion of the samples being collected in wet weather conditions, and potentially for the greater impacts seen in the “wet” or “heavy rain” rainfall conditions (section 3.4), as well as in any presentation of an overall data set that includes 2017 and 2018 data (i.e., Table 3-5). The addition of shoreline sampling locations increased the number of sampling events, as sampling could be performed in weather conditions that previously were unsafe for boat-based sampling. This is reflected in the large number of station visits in 2018 (932) relative to the previous five years (2,309 station visits from 2013-2017).

Table 3-2. Charles River Basin pollution sources.

Source	Upper Basin	Mid-Basin	Lower Basin
CSOs (untreated)	<p>2 active, 4 closed</p> <p>CAM005, CAM007</p> <p>CAM009 closed 11/07¹ CAM011 closed 11/07¹ BOS032 closed 11/97 BOS033 closed 10/96</p>	<p>6 active, 3 closed</p> <p>MWR010, MWR018, MWR019, MWR020, MWR023, CAM017</p> <p>BOS042 closed 5/96 MWR021 closed 3/00 MWR022 closed 3/00</p>	<p>3 closed</p> <p>BOS049 closed 7/10 BOS028 closed prior to 1997 SOM010 closed prior to 1996</p>
CSO treatment facility (settling and detention; screened, chlorinated and dechlorinated CSO discharge)	No	Yes Cottage Farm (MWR201) activated 4 times in 2018	No
Storm drains	Yes	Yes	Yes
Upstream inputs (elevated bacteria counts upstream)	Yes	Yes	Yes
Dry weather inputs (elevated bacteria counts in dry weather)	Yes	Yes	Yes
Tributary brook or stream flow	Yes	Yes	Yes

¹ Pending continuing hydraulic evaluations by City of Cambridge.

Table 3-3. Charles River Basin CSO activations, results of MWRA model simulations, meter measurements, and facility records for 2018 system conditions and 2018 rainfall.¹

CSO Outfall	Activation Frequency	Total Discharge Duration (hr)	Total Discharge Volume (million gallons)
<i>Upper Charles</i>			
CAM005	15	11.50	4.97
CAM007	2	4.50	0.14
TOTAL		16.00	5.11
<i>Lower Charles</i>			
CAM017	0	0	0
MWR010	0	0	0
MWR018	2	1.75	N/A
MWR019	2	1.75	N/A
MWR020	2	2.00	N/A
MWR201 (Cottage Farm Facility) ²	4	10.26	30.14
MWR023 (Stony Brook) ³			>0.05
TOTAL⁴			>30.19

¹For the untreated CSO outfalls, activation frequency, duration and volume for 2018 rainfall are from model results from January 1 – April 14, and are from meter measurements from April 15 – December 31. Only activation frequency and duration are available at level-only meter locations (MWRA 2019).

²Treated discharge. Activation frequency and volume are from MWRA facility records (measurements).

³Estimated discharge volume; past modeling of the sewer system tributary to MWR023 has shown very infrequent and small discharges of CSO through MWR023, which also conveys a large amount of stormwater.

⁴30.14 million gallons of total annual CSO discharge to the Lower Charles is treated. Estimates of MWR023 CSO discharges are very small relative to Cottage Farm discharges.

Table 3-4. Charles River station visits by rainfall condition.

Sampling period	Dry ¹	Damp ¹	Wet ¹	Total
2013-2017	27% 623 station visits	31% 711 station visits	42% 975 station visits	100% 2,309 station visits
2018 ²	23% 216 station visits	31% 290 station visits	46% 426 station visits	100% 932 station visits

¹ Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; damp is everything in between.

² 2018 samples tended to be collected in wetter conditions than the previous five years, with increased focus on sampling following large storms.

3.3 Summary of water quality, 2014-2018

A summary of water quality results collected during the last five years is shown in Table 3-5.

Table 3-5. Summary of water quality, Charles River Basin, 2014-2018.

Parameter		MADEP Water Quality Guideline or Standard	Upper Basin				Mid-Basin				Lower Basin			
			Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n
Surface Temperature (°C) ¹	Summer	≤ 28.3	21.7 ± 4.6	99.2	7.7 – 28.9	736	22.0 ± 4.4	98.8	8.4 – 29.2	665	22.6 ± 4.4	95.3	9.0 – 30.0	169
	Winter		4.1 ± 2.2	100.0	0.0 – 10.1	89	4.7 ± 0.7	100.0	3.1 – 6.1	48	3.6 ± 2.3	100.0	-0.5 – 9.0	34
Bottom water dissolved oxygen (mg/L) ¹	Summer	≥ 5.0	6.9 ± 1.7	90.1	0.9 – 12.0	544	4.1 ± 3.0	42.8	0.1 – 10.7	624	5.9 ± 2.7	58.3	0.8 – 13.2	151
	Winter	≥ 5.0	12.6 ± 0.9	100.0	11.6 – 14.6	45	9.3 ± 4.3	73.8	0.9 – 12.4	42	12.3 ± 1.1	100.0	9.4 – 14.0	28
pH ² (S.U.)		6.5-8.3	7.4 ± 0.4	97.5	6.7 – 9.0	1932	7.4 ± 0.6	91.5	6.1 – 9.1	1854	7.2 ± 0.6	89.7	5.9 – 8.8	542
Water clarity	Total Suspended Solids (mg/L)	NS	4.2 ± 8.0	-	0.4 – 60.1	121	ND	-	ND		4.4 ± 5.2	-	0.6 – 44.9	117
	Secchi depth (m) ³	NS	1.0 ± 0.3	-	0.3 – 2.2	666	1.1 ± 0.3	-	0.4 – 2.1	864	1.2 ± 0.3	-	0.6 – 2.6	278
	Turbidity (NTU)	NS	7.0 ± 4.6	-	0.1 – 63.6	1714	6.9 ± 4.0	-	0.1 – 59.2	1752	6.1 ± 3.5	-	0.5 – 40.9	427

For footnotes, see following page.

Table 3-5. Summary of water quality, Charles River Basin, 2014-2018, continued.

Parameter		MA DEP Water Quality Guideline or Standard	Upper Basin				Mid- Basin				Lower Basin			
			Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n
Bacteria (col/100mL) ⁴	<i>E. coli</i>	126 / 235 ⁵	181 (167-197)	60.9	0 – 38400	1310	65 (59-72)	73.0	0 – 53800	1640	45 (38-54)	80.3	0 – 11200	467
	<i>Enterococcus</i>	33/ 61 ^{5,6}	23 (20-26)	66.6	0 – 24200	1309	10 (9-11)	77.1	0 – 17300	1647	9 (7-11)	82.2	0 – 2760	467
Nutrients (µmol/L)	Phosphate	NS	0.6 ± 0.3	-	0.2 – 2.4	123	ND	-	ND		0.5 ± 0.4	-	0 – 2.0	119
	Ammonium	NS	3.9 ± 3.2	-	0.2 – 22.2	121	ND	-	ND		5.8 ± 5.6	-	0 – 32.1	117
	Nitrate+nitrite	NS	40.2 ± 19.2	-	9.7 – 93.6	123	ND	-	ND		35.1 ± 24.1	-	0 – 95.8	119
Algae (µg/L)	Chlorophyll	NS	4.8 ± 5.0	-	0.3 – 29.6	123	ND	-	ND		16.1 ± 16.1	-	0.7 – 96.6	119

NS: no applicable numerical standard or guideline. ND: no data. n: number of samples

¹ Summer (June-October), Winter (January-March).

² Median and standard error of the median are shown for pH, rather than arithmetic mean and standard deviation.

³ MADPH standard of ≥1.2 meters applies only to public bathing beaches; there are none in the Charles River Basin.

⁴ For bacterial data, 95% confidence intervals (CI) are provided in lieu of standard deviations. “Mean” = geometric mean for bacteria data.

⁵ First number is the all samples geometric mean limit - compare to the "Mean±SD" column (i.e., the Mean in that column is the geometric mean of all stations in that region for the specified indicator bacteria); the second number is the single sample standard - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the single sample standard). The “Range” column gives the range of single sample results.

⁶ Either *E. coli* or *Enterococcus* are acceptable indicators for EPA, MADEP, and MADPH to assess suitability for swimming in freshwater.

3.4 *Water quality results, 2018*

This section provides an analysis of water quality parameters measured in the lower Charles in the 2018 monitoring year.

3.4.1 Physical measurements

Temperature. Summer (June to October) water temperatures for 2018 are shown for each sampling location in the top graph in Figure 3-2. Surface temperatures are relatively consistent upstream to downstream. Bottom-water temperatures are lower in the deeper waters downstream near the Longfellow Bridge, particularly station 009, where water depth exceeds 6 meters (20 to 23 feet). Station 166 is collected in a shallow location in the basin near the Science Museum, where differences in surface and bottom temperatures are small or nonexistent. Locations upstream of station 004 (upstream of the Eliot Bridge in Cambridge) are relatively shallow, with depths ranging from 1 to 3 meters.

Dissolved Oxygen. The spatial trend in summer dissolved oxygen (DO) is shown in the center graph of Figure 3-2. All surface water DO measurements met the State standard of ≥ 5.0 mg/L at all locations. While bottom DO does meet the State standard of ≥ 5.0 mg/L at upstream locations in the Charles, mean bottom water DO failed to meet the standard at deeper water locations downstream, including stations 007, 009, and 010. Stratification, due to salt water intrusion through the river locks and cooler bottom temperatures, results in extremely low bottom-water dissolved oxygen in the lower basin area near the Longfellow Bridge. This pattern is seen in past years as well. Station 166, downstream of the lower basin, is collected at a relatively shallow near-shore location and does not reflect the low DO levels of deeper water in the lower basin.

Water clarity. Water clarity is indicated by Secchi disk depth. Summer Secchi readings are shown for individual sampling locations in the bottom graph in Figure 3-2. Station 012 at the further upstream end is too shallow for Secchi measurements but is typically clear to the river bottom. Most locations in the Lower Charles had relatively similar average Secchi depths, with values slightly below the MADPH beach guideline of 1.2 meters. In 2018, the most downstream stations exhibited average Secchi depths above the MADPH beach guideline.

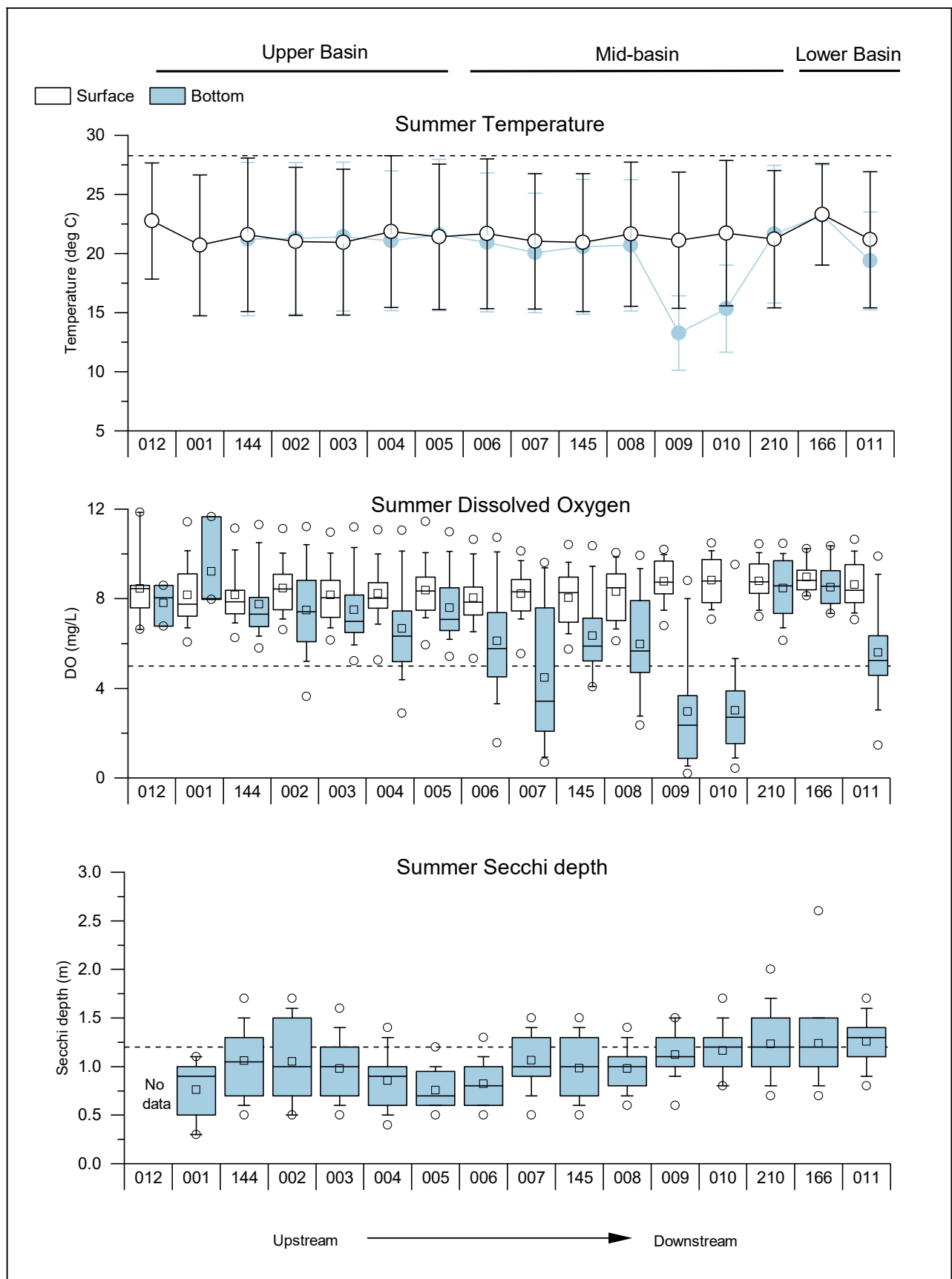


Figure 3-2. Summer temperature, dissolved oxygen and Secchi depth, Charles River Basin, 2018.

Dashed lines are State standards or guidelines (maximum for temperature, minima for DO and Secchi). No Secchi data are available for station 012 because of shallow depth; the bottom is typically visible at this site. Hollow squares on the DO and Secchi plots indicate the arithmetic mean.

3.4.2 Nutrients, TSS and chlorophyll

Monthly means for total nitrogen, ammonium, nitrate/nitrite, total phosphorus, phosphate, total suspended solids (TSS), and chlorophyll *a* at the upstream (012) and downstream (166) locations in the lower Charles are shown in Figure 3-3 and Figure 3-4, respectively. 2018 averages are plotted with the average of the previous five years (2013 – 2017) for comparison.

Seasonal patterns for the 2018 monitoring year were similar to the 2013 – 2017 averages at both stations, for most parameters. Total nitrogen and total phosphorus concentrations tracked closely with historical averages. TSS concentrations were lower than historical averages and no TSS spikes were observed at either station.

Seasonal signals during 2018 were most evident for nitrate/nitrite, ammonium, and chlorophyll *a*. At both locations, nitrate/nitrite levels were highest in winter when biological uptake is low, though in January through March 2018 these levels were slightly lower than the historical averages. Both locations exhibit elevated ammonium concentrations in May/June, a trend reflected in 2018 and the previous 5-year average. While the two locations showed similar concentrations for most parameters, there were differences between the two stations for chlorophyll *a*. Historically, station 012 has the highest chlorophyll concentrations in spring, whereas the Lower Basin has highest concentrations in late summer. This elevated chlorophyll *a* was evident in 2018 at station 166 in July and September before falling well below the 5-year average in late fall.

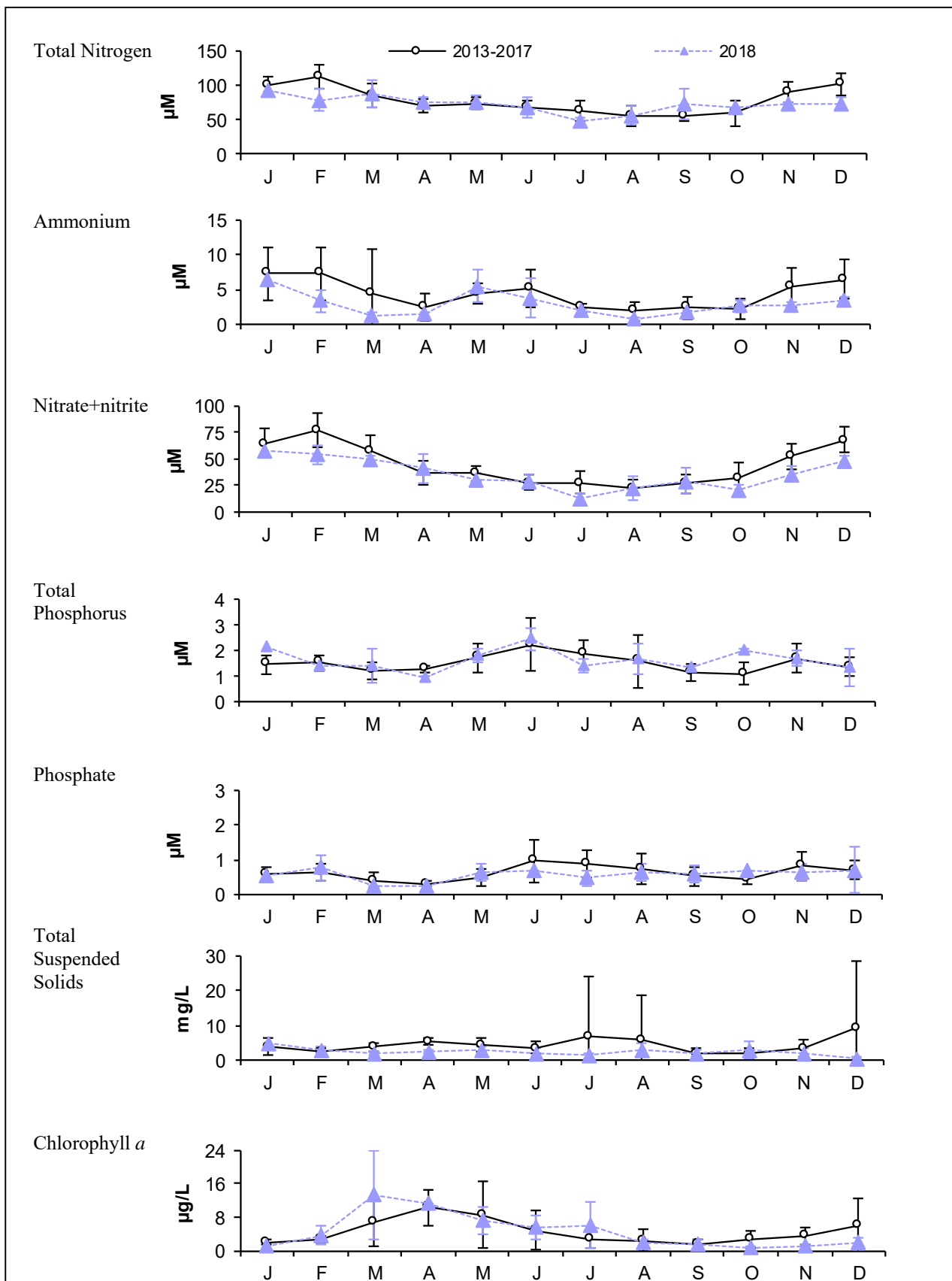


Figure 3-3. Monthly average nutrients, TSS and Chlorophyll 2013 – 2017 and 2018, Station 012, Watertown Dam.

Error bars are ± 1 SD. Note different scales than Figure 3-4 for most parameters.

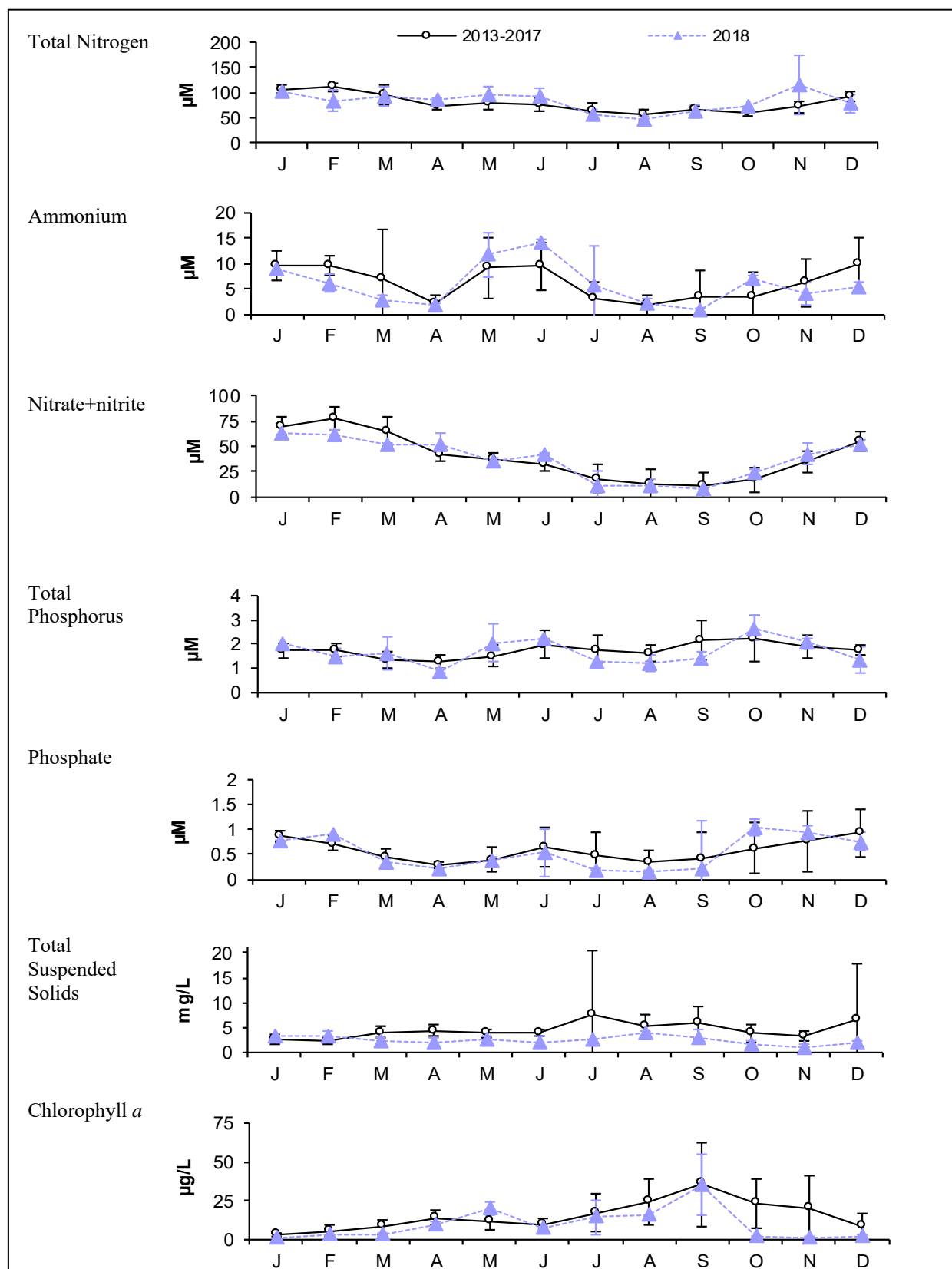


Figure 3-4. Monthly average nutrients, TSS and Chlorophyll 2013 – 2017 and 2018, Station 166, Science Museum.

Error bars are ± 1 SD. Note different scales than Figure 3-3 for most parameters.

3.4.3 Bacterial water quality

Figure 3-5 shows the 2018 bacterial water quality at each location sampled in the Charles for dry, damp, and wet weather. The rainfall categories are derived from rainfall measured at four local rain gauges: MWRA's Ward Street, BWSC's Allston and Charlestown, and USGS's Fresh Pond gauges. Each sampling location is paired with the closest rain gauge. Upstream reaches generally have more elevated bacteria counts than downstream locations, though this trend is less pronounced than in past years. As shown in Table 3-4, wet weather sampling in the Charles River occurred more frequently in 2018 than previous years, due to enhanced focus on sampling consecutive days after storms.

The top and bottom graphs in Figure 3-5 show percentile plots of *Enterococcus* and *E. coli* counts arranged from upstream to downstream locations for 2018, respectively (note log scale). In 2018, both *Enterococcus* and *E. coli* show the historic spatial trend with more elevated bacteria counts upstream relative to downstream locations. *E. coli* counts are typically higher than *Enterococcus*, but show similar distribution spatially and in the various rainfall conditions. Within the same set of samples, geometric mean state standards (dashed lines) were met for *Enterococcus* more often than *E. coli*, particularly at upstream locations. Most stations met standards in dry and damp conditions for *Enterococcus*, but several stations in the Upper Basin did not meet *E. coli* standards in dry and damp conditions. For stations downstream of the Mass. Ave. Bridge (008 through 011), results typically meet standards for both indicators in dry and damp conditions, and occasionally in wet weather.

Geometric means for each location under all rain condition for 2013 - 2017 appear in Table 3-6. Geometric means for 2018 are shown in a separate column from the 5-year geometric means. For both indicators, 2018 geometric means were higher than the 5-year mean at all locations. This is due to the increased sampling effort following heavy storms, as 46% of station visits in 2018 were conducted in 'Wet' conditions (greater than 0.5" rain in the past two days). This is accentuated in the stations surveyed by shoreline during inclement weather and weekends (shaded), which received a higher proportion of wet weather sampling than samples not sampled by shoreline. Despite this bias, annual geometric means at stations downstream of the Mass. Ave Bridge met the *Enterococcus* standard of 33 MPN/100mL.

Figure 3-6 shows the impact of rainfall on the three Lower Charles reaches on *Enterococcus* densities (upper figure), along with results for individual locations near CSO outfalls (lower figure). The upper figure shows that for 2018, bacterial concentrations in the Upper Basin were routinely higher than Mid-Basin and Lower Basin stations in all conditions except dry. The 2018 geometric means, the line within the box, met the state standard in dry and damp conditions in all reaches, but exceeded in light and heavy rain in all reaches. The lower figure shows that stations 005, 006 and 008 had elevated *Enterococcus* levels in heavy rain conditions, but met standards in dry, damp, and light rain conditions, with the exception of 005, which did not meet in light rain conditions (which is consistent with its location in the Upper Basin). Stations 009 and 210, which are both downstream of CSOs, met standards in all conditions except heavy rain. Station 011 at the New Charles River Dam, met the geometric mean standard in dry and damp conditions, but not in light or heavy rain.

The change in *Enterococcus* concentrations since 1989 in the Upper Charles Basin (upstream of most CSO influences) and the lower Charles (including the Mid- and Lower-Basin locations) appear in Figure 3-7 and

Figure 3-8. Results are grouped by phases of the LTCP improvements with the last period (2014-2018) after the completion of all LTCP-related projects in the Charles. The plot includes the counts for all locations in the Charles combined, in each rainfall condition. These figures show change over time in both regions, with statistically significant improvement in water quality from the initial phase to the latest phase. The Upper Basin shows improvement in both dry and wet conditions and meets the geometric mean swimming standard in dry, damp, and light rain weather, although individual high counts are still seen in all conditions. The most pronounced change is in the Middle and Lower Charles Basins, which met the geometric mean swimming standard in all conditions besides heavy rain in the Lower Basin.

2018 compliance rates with State single sample standards by weather condition are shown in Figures 3-9 (*Enterococcus*) and 3-10 (*E. coli*). Stations in the Mid-basin and Lower Basin exhibit high compliance in dry and damp weather. Stations at the widest portion of the river exhibit the highest compliance rates in wet weather, even those immediately downstream of untreated CSOs (009, 210). While the overall dry to wet pattern is clear, there are occasionally stark differences in compliance rates between the two freshwater bacteria indicators. Stations 004 and 005 between Allston and Cambridge demonstrated high compliance with *Enterococcus* standards in dry weather, but poor compliance rates for *E. coli* in dry weather. In wet weather, station 012 above the Watertown Dam was 33% compliant for *Enterococcus*, but 78% compliant for *E. coli*.

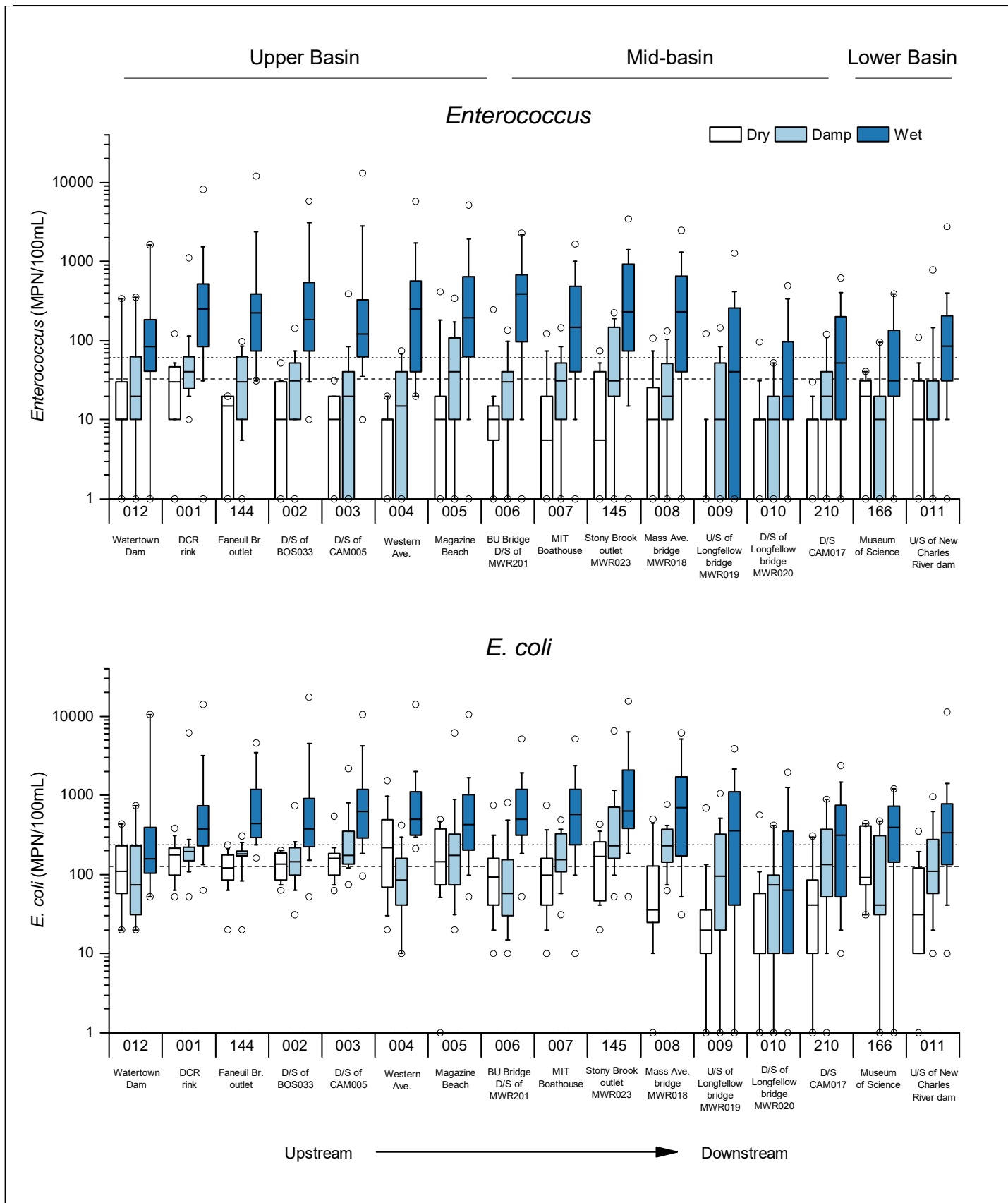


Figure 3-5. Indicator bacteria concentrations, Charles River Basin, 2018.

Dashed lines show MADEP *Enterococcus* and *E. coli* geometric mean standards, dotted lines show single sample standards. “Dry”: no rainfall for previous 3 days; “Wet”: at least 0.5 inches in previous 2 days; “Damp”: everything in between. Rainfall measured at local rain gauges. “D/S” and “U/S”: downstream and upstream, respectively.

Table 3-6. Geometric mean indicator bacteria, Charles River Basin, 2013 – 2017 and 2018.

Stations designated for shoreline sampling (weekends or unsafe boating conditions) are shaded.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) ¹ MPN/100 mL DEP limit: 33 MPN/100 mL		<i>E. coli</i> (95% CI) ¹ MPN/100 mL DEP limit: 126 MPN/100 mL	
			2013 – 17	2018	2013 – 17	2018	2013 – 17	2018
012	Newton/Watertown, footbridge upstream of Watertown Dam	S	125	24	17 (12-23)	27 (12-62)	138 (114-166)	138 (79-240)
001	Newton, near Nonantum Rd., rear of DCR skating rink	S	148	71	29 (20-43)	94 (64-139)	257 (208-318)	321 (246-419)
144	Brighton, downstream of N. Beacon St. bridge, Faneuil Brook outlet, BOS032 (closed 1999)	S	120	36	18 (12-28)	38 (18-77)	223 (174-286)	229 (158-333)
002	Allston, downstream of Arsenal Street bridge, BOS033	S	149	72	21 (14-31)	69 (43-111)	206 (160-265)	292 (218-391)
003	Allston/Cambridge, midstream, near Mt. Auburn Street, between CAM005 and CAM007	S	150	72	16 (11-24)	48 (28-82)	165 (132-207)	402 (305-531)
004	Allston/Cambridge, midstream, between River Street and Western Avenue bridges	S	123	36	6 (4-9)	24 (11-53)	78 (55-110)	241 (146-399)
005	Cambridge, near Magazine Beach, upstream of Cottage Farm	S	262	94	11 (8-14)	55 (35-88)	105 (87-128)	269 (206-351)
006	Cambridge/Boston, midstream, downstream of Cottage Farm, BU bridge	S	123	36	17 (11-25)	35 (16-75)	152 (120-193)	167 (101-276)
007	Cambridge, near Memorial Dr., MIT Boathouse	S	150	72	11 (7-15)	38 (23-64)	64 (47-88)	252 (185-341)
		B	123	36	10 (6-15)	35 (18-69)	84 (64-111)	265 (172-408)
145	Boston (Charlesgate), Muddy River/Stony Brook outlet	S	150	72	17 (12-25)	65 (38-111)	131 (98-175)	478 (343-664)
008	Cambridge/Boston, midstream, downstream of Harvard Bridge	S	123	36	6 (4-9)	20 (8-46)	50 (36-71)	162 (88-298)
		B	123	36	8 (5-13)	27 (13-59)	58 (41-80)	240 (148-390)
009	Cambridge/Boston, midstream, upstream of Longfellow Bridge near Community Sailing	S	157	71	5 (3-7)	27 (16-46)	39 (29-52)	188 (117-301)
		B	123	36	1 (0-1)	0 (0-1)	6 (4-9)	11 (5-22)
010	Boston, downstream of Longfellow Bridge, MWR022	S	123	36	5 (3-7)	8 (3-16)	28 (20-37)	61 (33-112)
		B	123	36	3 (2-5)	7 (4-13)	11 (8-15)	22 (12-40)
210	Cambridge, Cambridge Pkwy (at CAM017)	S		72		20 (12-31)		138 (91-209)
166	Boston, old Charles River dam, rear of Science Museum	S	131	24	3 (2-4)	14 (6-31)	39 (28-54)	110 (51-236)
011	Boston, upstream of river locks (New Charles River Dam) and I- 93, near Nashua St.	S	150	71	5 (3-7)	32 (20-51)	24 (17-32)	202 (141-289)
		B	123	36	12 (8-16)	20 (11-38)	25 (19-34)	84 (50-141)

¹ The MADEP limits are geometric means for both *Enterococcus* and *E. coli*.

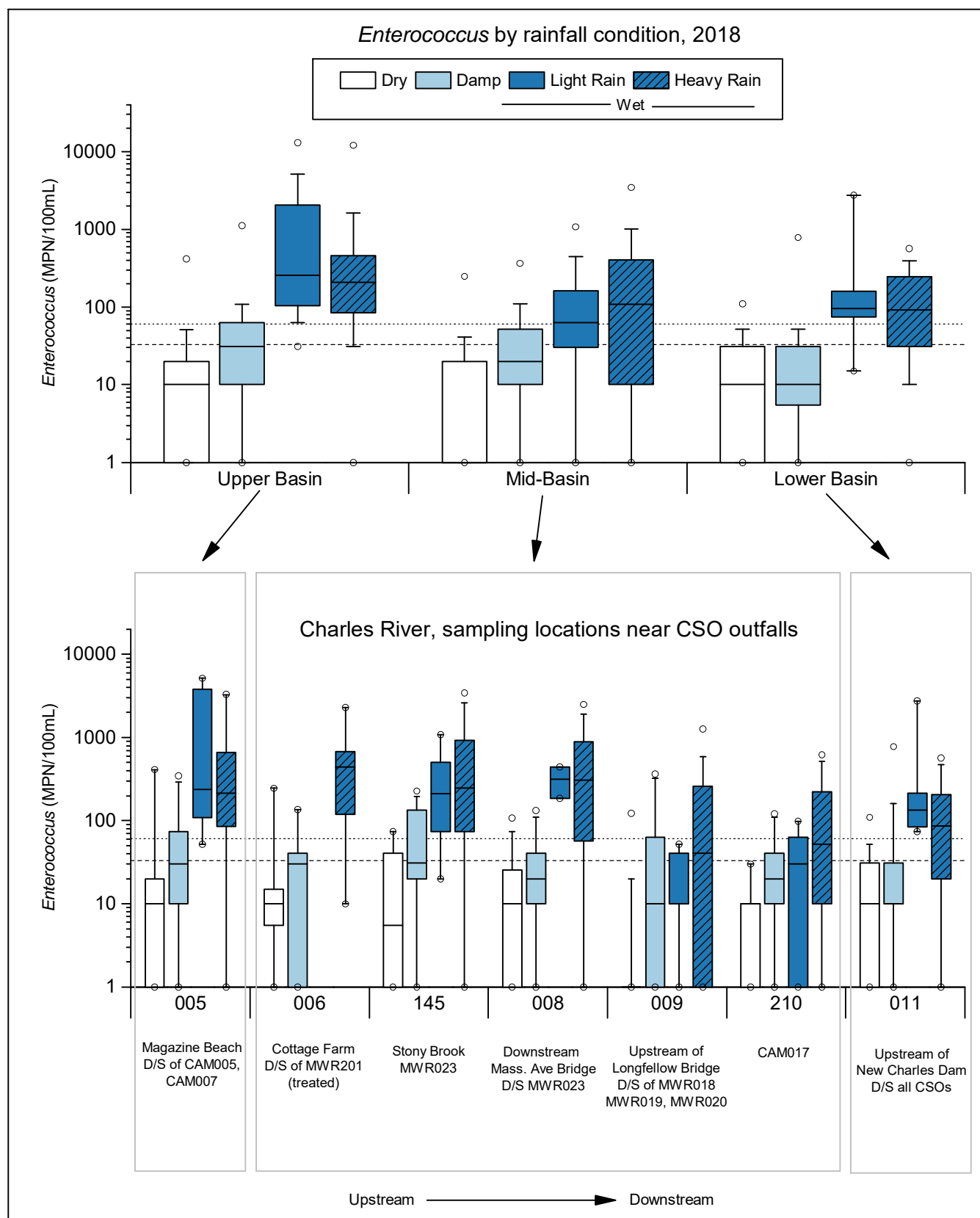


Figure 3-6. *Enterococcus* by rainfall condition, Charles Basin, 2018.

Dashed line shows MADEP freshwater standard of 33 MPN/100 mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Rainfall is rainfall from local MWRA, BWSC, and USGS rain gauges. “Dry”: no rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days. “D/S”: downstream.

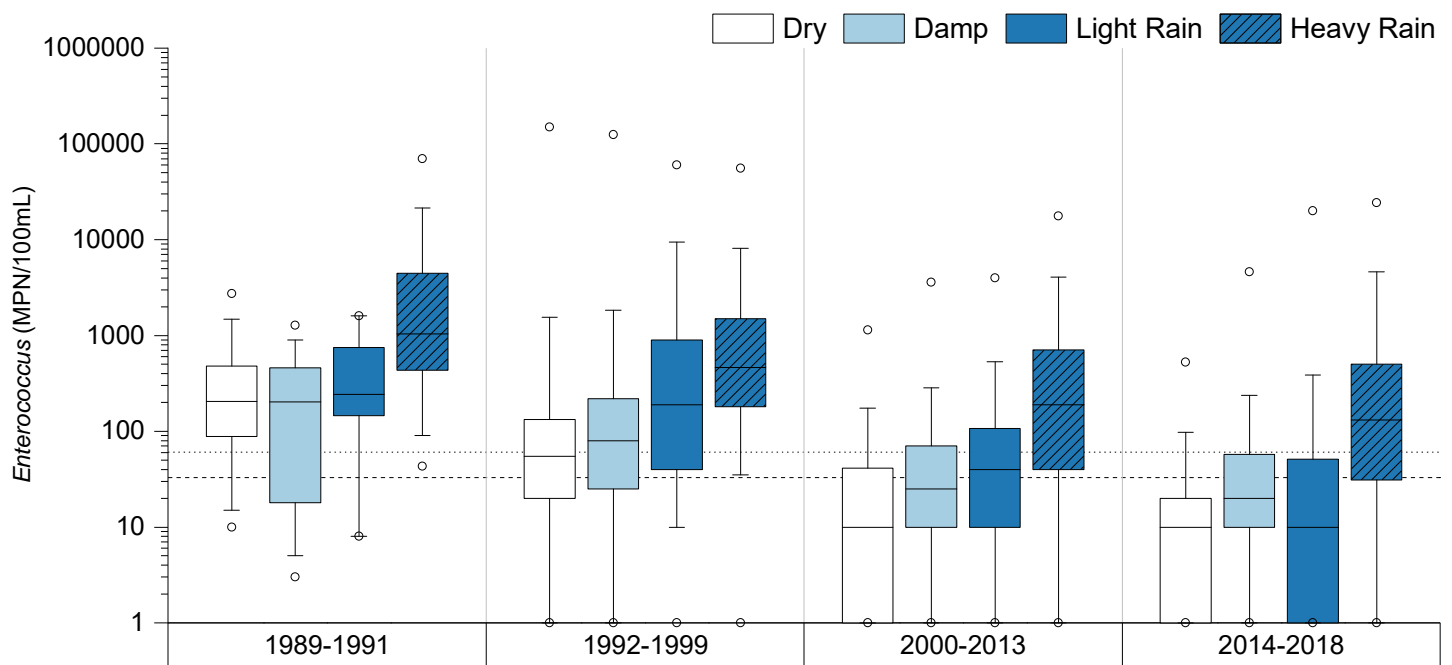


Figure 3-7. *Enterococcus* over time, Upper Charles Basin (upstream of most CSOs) by phase of Long Term CSO Plan and rainfall condition.

Dashed line shows State geometric mean standard (33 MPN/100mL), dotted line shows single sample standard (61 MPN/100mL). Data includes results for stations 012, 001, 144, 002, 004, and 005. Rainfall is NOAA rainfall from Logan airport. “Dry”: No rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days.

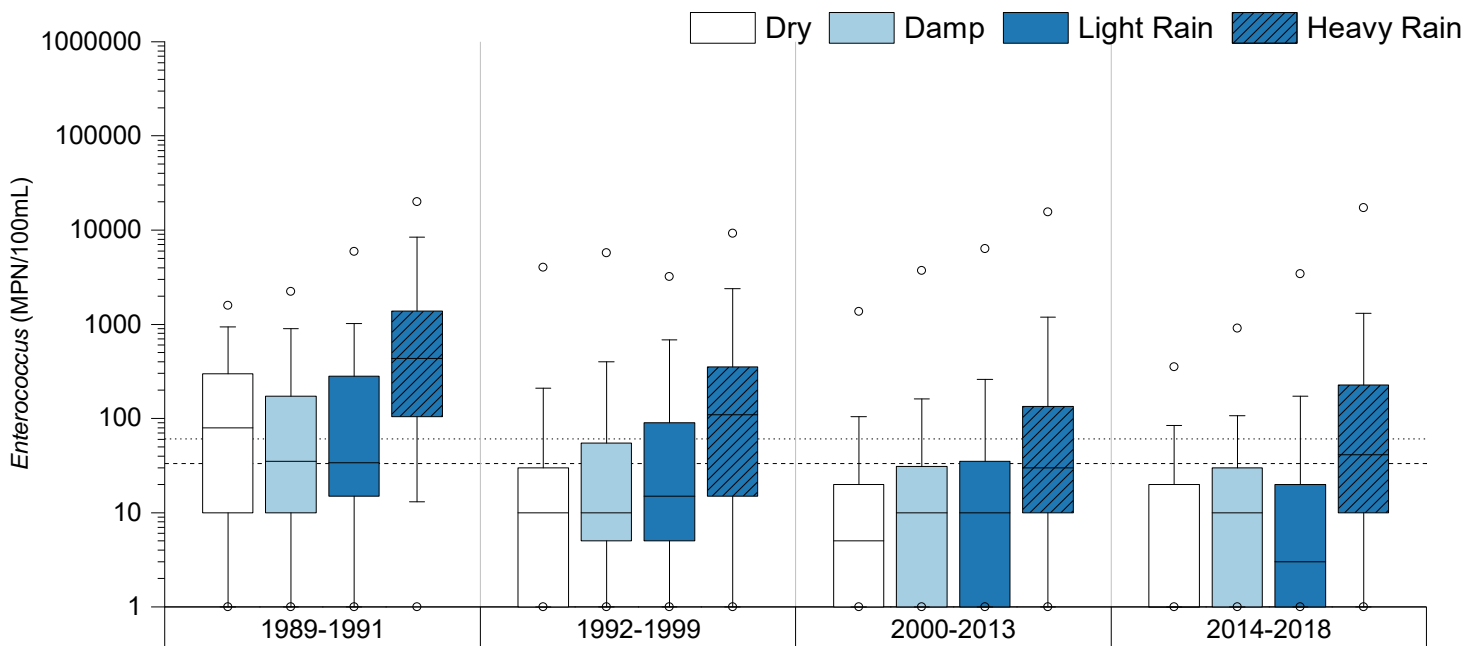


Figure 3-8. *Enterococcus* over time, Lower and Middle Charles Basin by phase of Long Term CSO Plan and rainfall condition.

Dashed line shows State geometric mean standard (33 MPN/100mL), dotted line shows single sample standard (61 MPN/100mL). Data includes results for all stations from 006 (BU bridge) downstream. Rainfall is NOAA rainfall from Logan airport. “Dry”: No rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days.

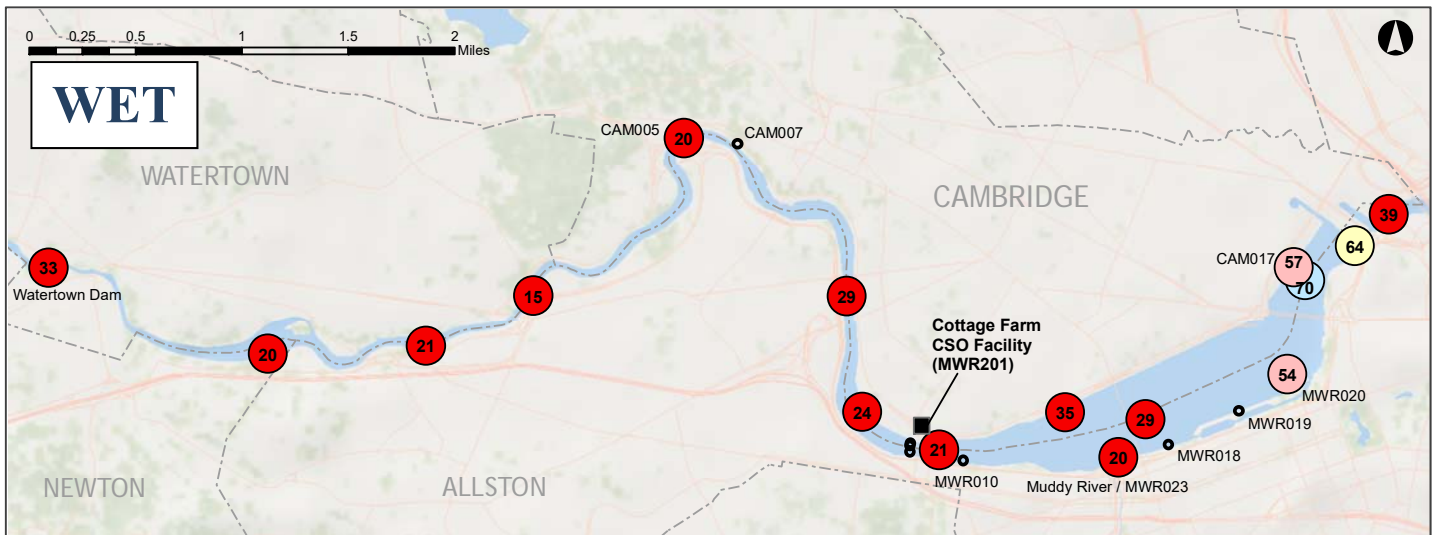
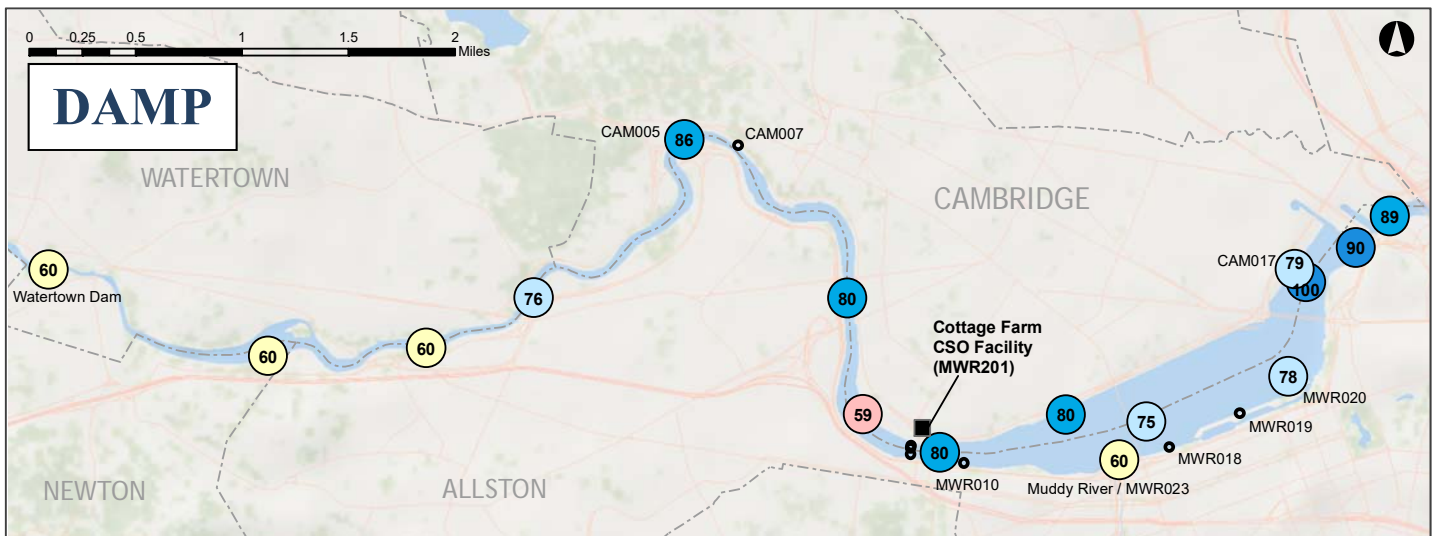
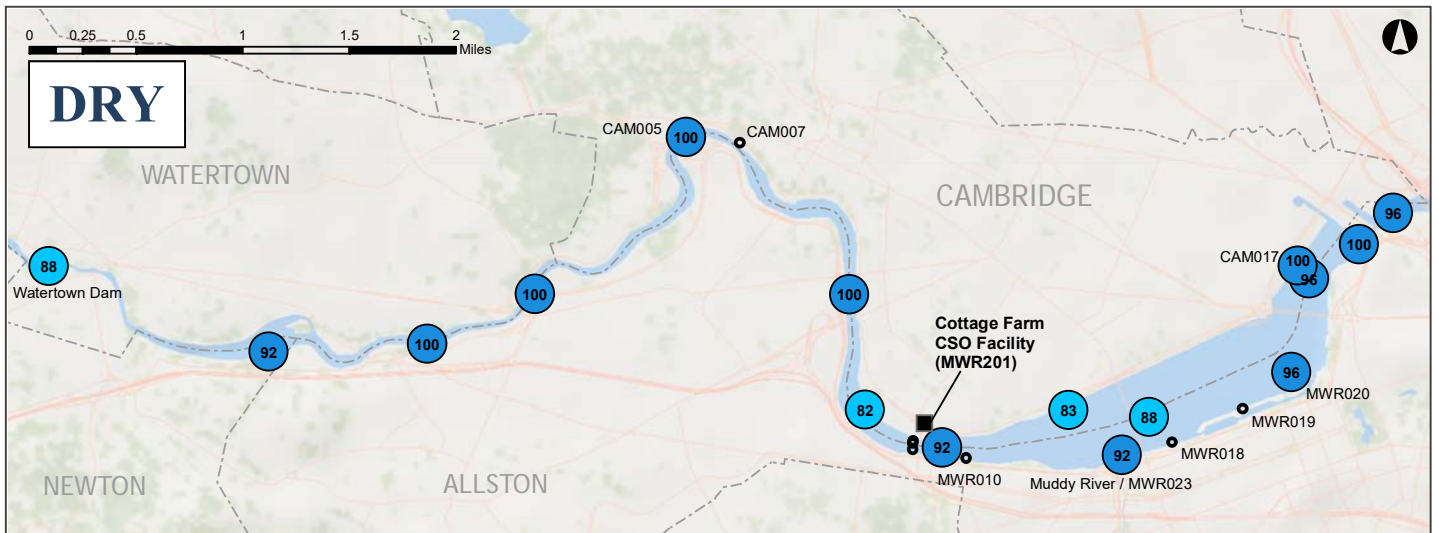


Figure 3-9. Charles River *Enterococcus* percent compliance by weather condition, 2018.
 Compliance with 61 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station. Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Dots are the monitoring locations pictured in Figure 3-1 and listed in Table 3-1.

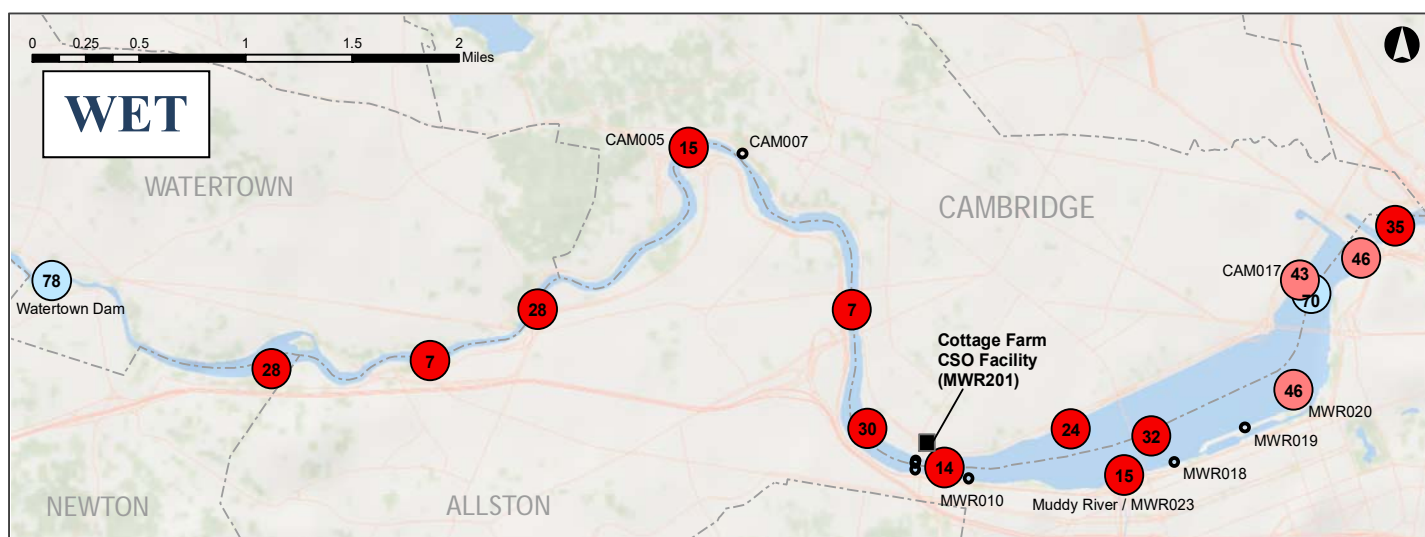
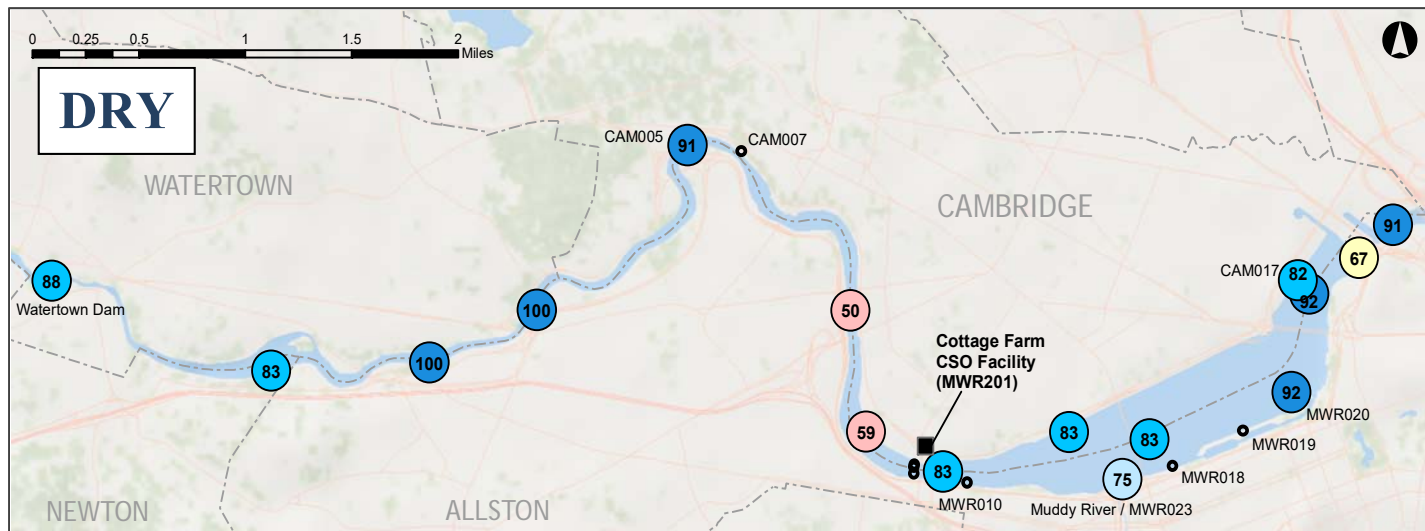


Figure 3-10. Charles River *E. coli* percent compliance by weather condition, 2018.
 Compliance with 235 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station. Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Dots are the monitoring locations pictured in Figure 3-1 and listed in Table 3-1.

3.5 Summary of Charles River Water Quality

The spatial distribution of 2018 bacterial water quality in the Charles across rain conditions was generally consistent with the previous several years. Annual geometric means downstream of the Mass. Ave. Bridge generally met state standards for *Enterococcus* despite bias toward sampling after the year's strongest storms. Charles River stations from 144 downstream routinely meet *Enterococcus* standards in dry and damp weather, but exhibit exceedances in wet weather, particularly at Upper Basin and upstream Mid-Basin stations. Generally, water quality was consistent with prior years, with more elevated concentrations at upstream locations (upstream of most CSOs) in all weather, and improving moving downstream to the New Charles River Dam. Chapter 5 provides more detailed analysis of bacteria concentrations following storms of various sizes.

As shown in Figure 3-7 and 3-8, *Enterococcus* counts have generally decreased in all regions of the Charles River, in all weather conditions, through the progression of MWRA's Long Term CSO Plan. In the 2014-2018 period, after completion of all construction projects in the region, the geometric mean of *Enterococcus* in all regions meets state standards in all but heavy rain.

Bottom-water dissolved oxygen met standards in the Upper Charles Basin, but failed to meet standards in the deeper waters of the Mid-Basin and the Lower Charles Basin, a pattern consistent with prior years. With the Charles locks typically closed in the dry summer period, seawater intrusion settles into deeper parts of the basin, contributing to stratification of the basin and limited exchange with surface waters. Surface water dissolved oxygen met standards at all locations in the Charles River.

Nutrients and chlorophyll exhibited seasonal signals as expected, and closely followed long term averages overall. Elevated chlorophyll *a* was seen at upstream station 012 in the spring, and at station 166 in late summer and early fall, consistent with previous algae bloom patterns in the river.

4 Mystic River and Alewife Brook

4.1 Sampling area

Monitoring results of the Mystic River and tributaries are divided into four reaches. Sampling locations and CSO outfalls are shown on the map in Figure 4-1. Table 4-1 describes the reaches and the sampling locations within each reach.

For 2018, two new sampling location (stations 276 and 277) were added in the Alewife Brook bracketing the cluster of CSO outfalls around the Massachusetts Avenue bridge from Cambridge to Arlington. Station 277 is upstream of CAM401B, and station 276 is directly downstream of SOM001A. Station 308 was added in 2019 at the outfall of CAM401A, the beginning of Alewife Brook. Data from this station will be presented in next year's report.



Figure 4-1. Map of Mystic River sampling locations.

4.2 Pollution sources

Known pollution sources to the Mystic River/Alewife Brook are shown in Table 4-2 and consist of stormwater, upstream inputs and CSOs. Nine CSOs are located in Cambridge and Somerville, including six active CSOs in Alewife Brook, and one treated CSO in the Lower Mystic basin (Somerville Marginal CSO,

MWR205A/SOM007A), which discharges screened, chlorinated, and dechlorinated flow only during an activation occurring at high tide. At low tide, the Somerville Marginal CSO (MWR205) discharges downstream of the Amelia Earhart dam, screening, chlorinating, and dechlorinating CSO flow before discharge. It is the only source of treated CSO discharge to the Mystic River below the Amelia Earhart dam, although there is an untreated outfall (BOS017) as well. In 2018, Somerville Marginal MWR205A/SOM007A had 21 discharge events, and Somerville Marginal MWR205 had 35 activations resulting in discharge below the dam. BOS017 discharged 8 times in 2018. Neither MWR205 nor BOS017 are in the Variance waters, however. CAM401A and SOM001A are the most frequent CSO discharges to Alewife Brook, discharging 18 times and 14 times, respectively, in 2018.

Table 4-3 shows the MWRA model simulation and metering results for CSOs affecting the Mystic River and Alewife Brook in calendar year 2018. Metered CSO volumes and activation frequency are available for the Somerville Marginal CSO facility for the entire year, while the remaining results were obtained using a combination of model results and metering data, as explained in Section 3.2.

Table 4-4 summarizes the proportion of samples collected in dry, damp, and wet weather. 82% of the samples were collected in damp and wet conditions in 2018. Although the bias towards wet weather is not as extreme as in the Charles, there is a slight tilt towards samples collected in wetter conditions.

Table 4-1. MWRA monitoring locations, Mystic River and Alewife Brook.

Reach	Description of Reach	Sampling station	Location Description
Alewife Brook (Class B/Variance, warm water fishery)	Tributary to Mystic River. From confluence at Little River in Cambridge/Arlington to confluence with Mystic River in Arlington/Somerville	*174, Cambridge/Arlington *074, Cambridge/Arlington *277, Cambridge/Arlington *172, Cambridge/Arlington *276, Cambridge/Arlington *070, Arlington/Somerville	Little River, upstream of Rt. 2 and off ramp to Alewife T station. Upstream of all CSOs Downstream of CAM401A, MWR003 Upstream of CAM401B Downstream of CAM401B Downstream of SOM001A Mystic Valley Parkway bridge. Downstream of all Alewife CSOs
Upper Mystic River (Class B/Variance, warm water fishery)	Downstream of Lower Mystic Lake in Arlington/Medford to Route 28 bridge in Medford	*083, Arlington/Medford *057, Medford 066, Medford *056, Medford	Upstream of confluence of Mystic River and Alewife Brook Confluence of Mystic River and Alewife Brook Boston Ave bridge, downstream side Upstream of I-93 bridge, near Medford Square off ramp
Lower Mystic River basin (Class B/Variance, warm water fishery)	Route 28 bridge in Medford to Amelia Earhart Dam in Somerville/Everett, including the Malden River	177, Medford *067, Medford *176, Medford/Everett 059, Somerville/Everett *167, Somerville/Everett	Downstream of Rt. 16 bridge Rt. 28 bridge, downstream side, near Somerville Marginal MWR205A outfall Malden River, upstream of Rt. 16 bridge Confluence of Mystic and Malden Rivers Amelia Earhart Dam, upstream side
Mystic River mouth (Class SBcso, marine)	Downstream of Amelia Earhart Dam in Somerville/Everett to Tobin Bridge, Chelsea R. confluence in Chelsea/East Boston	052, Somerville 069, Charlestown 137, Charlestown/Everett	Downstream of Amelia Earhart dam, near Somerville Marginal CSO facility outfall (MWR205) Rear of Schrafft's Center at BOS017 outfall Upstream of Tobin Bridge near confluence of Mystic, Chelsea Rivers and upper inner harbor

Sampling locations are midstream unless otherwise noted. * indicates sampling location is also a shoreline sampling location.

Table 4-2. Mystic River/Alewife Brook pollution sources.

Source	Alewife Brook	Upper Mystic River	Lower Mystic Basin	Mystic River mouth
CSOs (untreated)	6 active, 7 closed CAM401A, MWR003, CAM001, CAM002, CAM401B, SOM001A CAM004 closed 12/15 CAM400 closed 3/11 SOM001 closed 12/96 SOM002 closed 1994 SOM002A closed 8/95 SOM003 closed 8/95 SOM004 closed 12/95	2 closed SOM006 closed 12/96 SOM007 closed 12/96	None	1 active BOS017
CSO treatment facility (screened, chlorinated and dechlorinated CSO discharge)	No	No	Yes Somerville Marginal (MWR205A/SOM007A, high tide only) Activated 21 times in 2018	Yes Somerville Marginal (MWR205) Activated 35 times in 2018
Storm drains	Yes	Yes	Yes	Yes
Upstream inputs (elevated bacteria counts upstream)	Yes	Yes	Yes	Yes
Dry weather inputs (elevated bacteria counts in dry weather)	Yes	Yes	Yes	Yes
Tributary brook or stream flow	Yes	Yes	Yes	Yes

Table 4-3. Mystic River/Alewife Brook CSO activations, results of MWRA model simulations, meter measurements, and facility records for 2018 system conditions and 2018 rainfall.¹

CSO Outfall	Activation Frequency	Total Discharge Duration (hr)	Total Discharge Volume (Million Gallons)
<i>Alewife Brook</i>			
CAM001	3	0.75	0.02
CAM002	4	1.25	1.43
MWR003	0	0	0
CAM401A	18	20.75	5.01
CAM401B	3	2.25	0.00
SOM001A	14	9.25	14.64
TOTAL		34.25	21.10
<i>Mystic River (upstream of dam)</i>			
SOM007A/MWR205A (Somerville Marginal, high tide discharge only) ²	21	48.87	N/A ²
TOTAL³		48.87	N/A²
<i>Mystic River mouth (downstream of dam, marine outfalls)</i>			
MWR205 (Somerville Marginal Facility) ⁴	35	131.33	121.44
BOS017	8	5.60	1.15
TOTAL		137.93	122.59

¹ For the untreated CSO outfalls, activation frequency, duration and volume for 2018 rainfall are from model results from January 1 – April 14, and are from meter measurements from April 15 – December 31. Only activation frequency and duration are available at level-only meter locations (MWRA 2019).

²Treated discharge. Activation frequency from MWRA depth sensor measurement. Volume estimate unavailable for 2018 due to MWRA hydraulic model calibration.

³In 2018, 100% of the volume discharged to the Mystic River (upstream of dam) was treated.

⁴Treated discharge. Activation frequency and volume are from MWRA facility records (measurements).

Table 4-4. Mystic River/Alewife Brook station visits by rainfall condition.

Sampling period	Dry ¹	Damp ¹	Wet ¹	Total
2013 - 2017	29% 734 station visits	35% 749 station visits	36% 885 station visits	100% 2,710 station visits
2018 ²	18% 162 station visits	21% 191 station visits	61% 557 station visits	100% 910 station visits

¹ Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; Damp is everything in between.

² A lower proportion of 2018 samples were collected in dry conditions than the previous five years, with increased focus on sampling tracking rain events.

4.3 Summary of water quality, 2014-2018

A summary of water quality results collected from the last five years is shown in Table 4-5.

Table 4-5. Summary of water quality, Mystic River/Alewife Brook, 2014 - 2018.

Parameter		Water Quality Guideline or Standard	Alewife Brook				Upper Mystic				Lower Mystic Basin				Malden River				Mystic Mouth			
			Mean \pm SD	% meeting guideline	Range	n	Mean \pm SD	% meeting guideline	Range	n	Mean \pm SD	% meeting guideline	Range	n	Mean \pm SD	% meeting guideline	Range	n	Mean \pm SD	% meeting guideline	Range	n
Surface Temperature ($^{\circ}\text{C}$) ¹	Summer	≤ 28.3	18.6 \pm 4.0	99.7	6.9 - 25.4	385	21.4 \pm 4.0	99.2	9.9 - 28.6	407	21.4 \pm 4.3	99.7	9.3 - 28.6	312	21.6 \pm 3.9	98.9	9.5 - 27.3	100	18.4 \pm 2.5	100.0	9.6 - 22.9	251
	Winter		5.9 \pm 1.4	100.0	4.3 - 8.0	14	3.4 \pm 2.1	100.0	-0.1 - 8.0	62	4.3 \pm 2.3	100.0	0.1 - 10.1	45	7.9 \pm 0.3	100.0	7.7 - 8.2	2	3.7 \pm 2.0	100.0	0.2 - 7.4	32
Bottom water dissolved oxygen (mg/L) ¹	Summer	≥ 5.0	4.5 \pm 2.0	23.8	2.3 - 8.8	13	5.5 \pm 2.3	64.6	0.6 - 11.4	223	6.4 \pm 2.6	66.7	0.6 - 14.3	288	5.3 \pm 2.5	43	0.6 - 12.1	82	7.0 \pm 1.3	95.7	4.5 - 12.7	213
	Winter	≥ 5.0	10.0 \pm 1.5	100.0	8.9 - 11.0	2	11.3 \pm 0.7	100.0	10.2 - 13.2	26	10.3 \pm 2.2	95.6	1.5 - 13.4	45	11.0 \pm 0.2	100.0	10.8 - 11.1	2	10.3 \pm 0.6	100.0	9.2 - 11.6	32
pH ⁶ (S.U.)		6.5-8.3 (8.5 marine)	7.2 \pm 0.3	98.3	6.1 - 8.4	642	7.5 \pm 0.6	91.0	6.3 - 9.6	1034	7.7 \pm 0.7	80.5	6.0 - 9.4	1041	7.7 \pm 0.7	80.9	6.7 - 9.2	274	7.8 \pm 0.3	99.5	6.3 - 8.4	780
Water clarity	Total Suspended Solids (mg/L)	NS	ND	-	ND		4.6 \pm 5.3	-	0.6 - 53.4	241	6.6 \pm 3.8	-	0.8 - 23.3	107	ND	-	ND		3.5 \pm 2.3	-	1.0 - 17.8	232
	Secchi depth (m) ³	NS	0.5 \pm 0.1	-	0.4 - 0.8	26	1.2 \pm 0.5	-	0.4 - 2.5	151	0.8 \pm 0.3	-	0.2 - 3.0	384	0.8 \pm 0.3	-	0.2 - 1.5	126	1.9 \pm 0.8	-	0.2 - 4.2	297
	Turbidity (NTU)	NS	9.7 \pm 6.1	-	0.3 - 44.9	293	6.9 \pm 5.6	-	0.4 - 54	765	8.7 \pm 5.6	-	0.5 - 68.5	797	9.9 \pm 5.4	-	1.1 - 43.3	258	6.1 \pm 2.9	-	0.5 - 29.5	726

For footnotes, see following page.

Table 4-5. Summary of water quality, Mystic River/Alewife Brook, 2014 - 2018, continued.

Parameter		Water Quality Guideline or Standard	Alewife Brook				Upper Mystic				Lower Mystic Basin				Malden River				Mystic Mouth			
			Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n
Bacteria (counts/100mL) ⁴	Fecal coliform	200 / 400 ⁵	ND	-	ND		ND	-	ND		ND	-	ND		ND	-	ND		22 (18-26)	91.1	0 - 620000	730
	<i>E. coli</i>	126 / 235 ^{5,6}	665 (611-724)	18.2	10 - 727000	975	121 (110-133)	78.2	0 - 17300	804	71 (62-83)	79.4	0 - 24200	612	151 (109 - 210)	64.6	0 - 24200	183	ND	-	ND	
	<i>Enterococcus</i>	33 / 61 ⁵	189 (171-210)	22.9	0 - 17300	987	29 (25-33)	70.5	0 - 19900	804	7 (6-8)	86.4	0 - 3260	612	23 (15-33)	78.1	0 - 9210	182	6 (5-7)	84.5	0 - 24200	730
Nutrients (µmol/L)	Phosphate	NS	ND	-	ND		0.4 ± 0.4	-	0.0 – 3.7	246	0.3 ± 0.3	-	0.0 – 2.3	109	ND	-	ND		0.8 ± 0.4	-	0.0 - 2.4	232
	Ammonium	NS	ND	-	ND		14.3 ± 11.2	-	0.1 - 44.3	241	9.4 ± 9.9	-	0 - 32.4	108	ND	-	ND		4.3 ± 3.7	-	0 – 20.9	226
	Nitrate+nitrite	NS	ND	-	ND		46.3 ± 26.4	-	0.1 - 264	246	28.9 ± 25	-	0 – 82.0	109	ND	-	ND		7.2 ± 7.6	-	0 - 36.8	232
Algae (µg/L)	Chlorophyll <i>a</i>	NS	ND	-	ND		9.6 ± 9.1	-	1.9 – 71.6	245	26.3 ± 25.9	78.3	2.0 – 156	109	ND	-	ND		4.9 ± 5.5	-	0.2 – 49.4	231

NS: no applicable numerical standard or guideline. ND: no data. n: number of samples.

¹ Summer (June-October), Winter (January-March).

² Median and standard error of the median are shown for pH, rather than arithmetic mean and standard deviation.

³ MADPH standard of ≥1.2 meters applies only to public bathing beaches; there are none in the Upper Mystic/Alewife Brook.

⁴ For bacterial data, 95% confidence intervals (CI) are provided rather than standard deviations

⁵ First number is the all samples geometric mean limit - compare to the "Mean±SD" column (i.e., the Mean in that column is the geometric mean of all stations in that region for the specified indicator bacteria); the second number is the single sample standard - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the single sample standard). The "Range" column gives the range of single sample results.

⁶ Either *E. coli* or *Enterococcus* are acceptable indicators for EPA, MADEP, and MADPH to assess suitability for swimming in freshwater.

4.4 *Water quality results, 2018*

This section reports spatial trends for water quality parameters measured in the Mystic River/Alewife Brook in 2018.

4.4.1 Physical measurements

Temperature. Summer (June to October) mean temperatures for 2018 are shown for each sampling location in the uppermost graph of Figure 4-2. Surface and bottom temperatures are similar along the main stem of the Mystic, except on the marine side of the dam, where water depth is greater and harbor temperatures are lower. The lower bottom temperature at Amelia Earhart Dam (station 167) demonstrates the stratification due to salt water intrusion. The Mystic River has a much shallower depth than the Charles River, and exhibits generally warmer bottom temperatures. Since many of these surveys were conducted by shoreline following rain events, the relatively small set of bottom temperature readings at stations 057 and 083 resulted in a higher seasonal average than expected. Still, all stations in this region met water quality standards for temperature in 2018.

Dissolved Oxygen. Dissolved oxygen is shown in the center graph of Figure 4-2. Mean surface dissolved oxygen concentrations met the State standard of ≥ 5.0 mg/L at all locations in the Mystic and Malden Rivers. Surface dissolved oxygen in Alewife Brook is typically lower than the Mystic River, and is often below the State standard. Surface DO concentrations in Alewife Brook were higher in 2018 than 2017, and consistent along the length of the brook. Average summer bottom water concentrations met the standard at all sites in 2018, with the exception of station 056 near Medford Square, and the deeper station 167 at Amelia Earhart Dam.

Water clarity. Water clarity is indicated by Secchi disk depth, which appears for each sampling location in the bottom graph of Figure 4-2. Water clarity for all but the Mystic River mouth is low, with all stations upstream of the Dam (excluding station 056) failing to meet the MADPH beach guideline of 1.2 meters. Alewife Brook and several of the Upper Mystic locations are often clear to the bottom and too shallow to measure Secchi depth. River depth at those locations are typically around 0.5 meters in Alewife Brook, and 1 meter in the Mystic River.

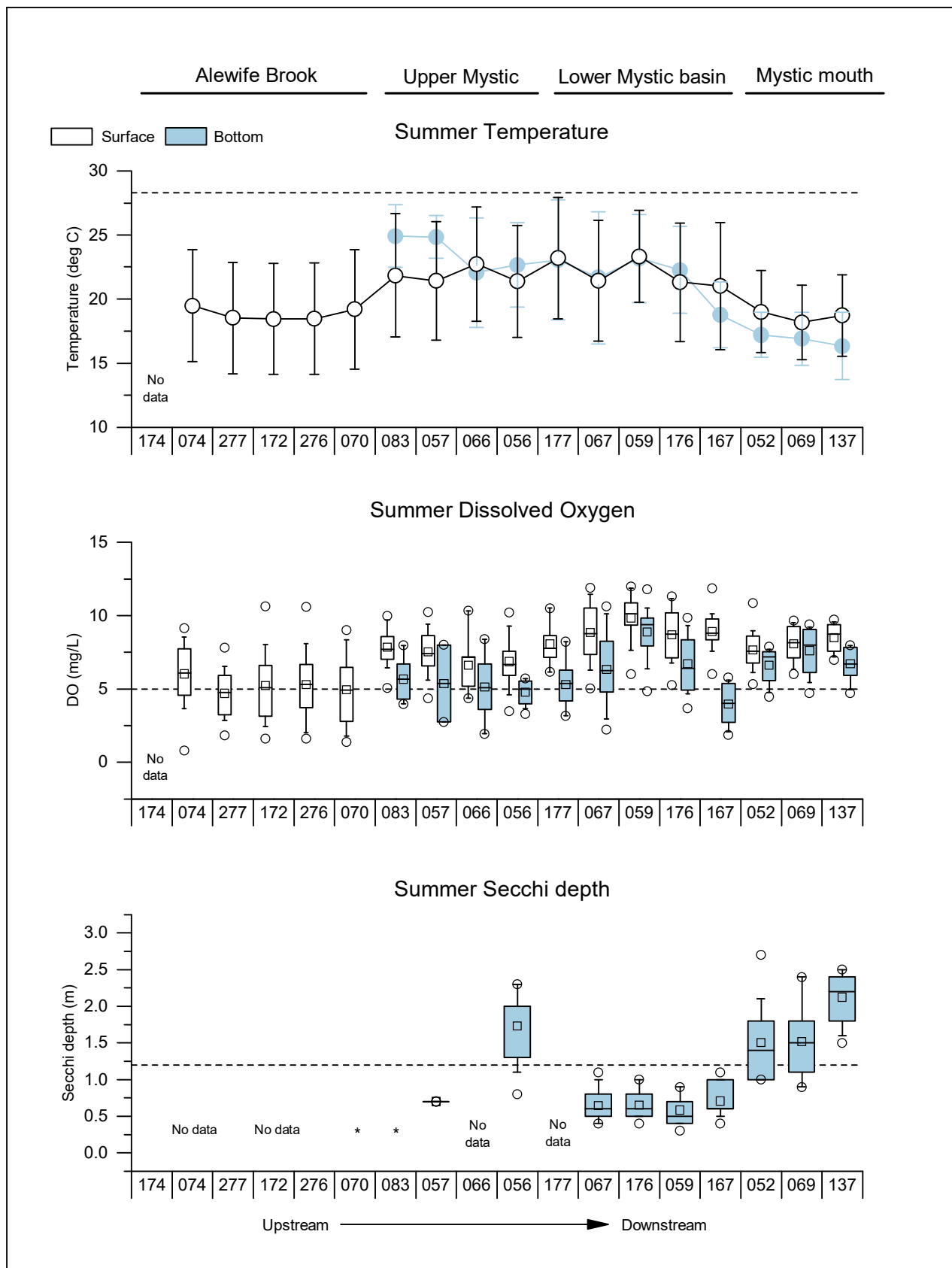


Figure 4-2. Summer temperature, dissolved oxygen, and Secchi depth, Mystic River, 2018.

Dashed lines are State standards or guideline (maximum for temperature, minima for DO and Secchi). Station 174 was too shallow for accurate summer temperature and DO readings in 2018. Stations 174, 074, 277, 172, 276, 066, and 177 were typically too shallow for Secchi measurements in the summer months of 2018. Stations 070 and 083 were clear to the bottom for all visits in 2018, indicated by *. Hollow squares on the DO and Secchi plots indicate the arithmetic mean.

4.4.2 Nutrients, TSS and chlorophyll

Figures 4-3 through 4-6 show monthly average total nitrogen, ammonium, nitrate/nitrite, total phosphorus, phosphate, total suspended solids, and chlorophyll *a* at the upstream Mystic locations (083 upstream of Alewife Brook and 066 at Boston Ave.), downstream (167 at Amelia Earhart Dam) and river mouth (137).

Regionally, ammonium, nitrate/nitrite, and phosphate results show relatively strong seasonal effects, as biological activity increases during the summer months. In winter months, when biological nutrient uptake is low, ammonium concentrations in the Upper Mystic are double the concentration in the Charles Basin.

At upstream locations 083 and 066, nutrients and TSS results in 2018 were largely similar to the previous five-year average (2013-2017). Notably, chlorophyll *a* values in the early summer were much lower than the recent 5 years. Phosphate concentrations at these locations were generally lower than the previous five-year average during spring and summer. The chlorophyll *a* results are indicative of algae growth in early summer in the Upper Mystic River, followed by an algae bloom from July through September at station 167 (Amelia Earhart Dam). Nitrates/nitrites were depleted by this algae growth throughout the late summer at station 167.

At marine station 137 in the Mystic mouth, nutrients generally aligned with the seasonal pattern and magnitude seen in the previous five years. Elevated chlorophyll *a* was observed in July and August, at the same time as a bloom on the freshwater side of Amelia Earhart Dam. Total nitrogen concentrations were above the five-year averages through most of 2018.

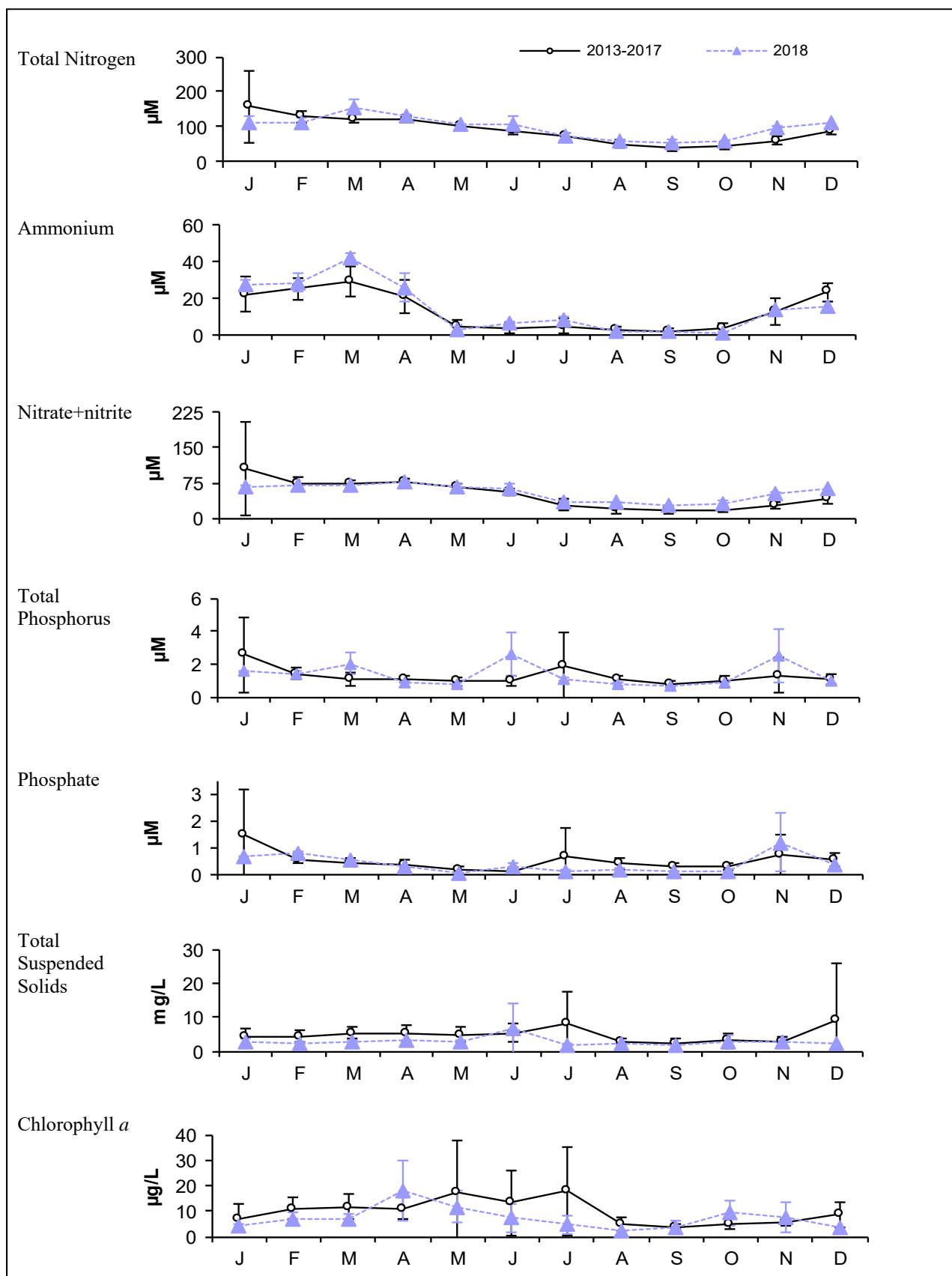


Figure 4-3. Monthly average nutrients, TSS and Chlorophyll, 2013 – 2017 and 2018, Station 083, Mystic upstream of Alewife Brook.

Error bars are ± 1 SD. Note different scales than for Figures 4-4, 4-5 and 4-6 for most parameters.

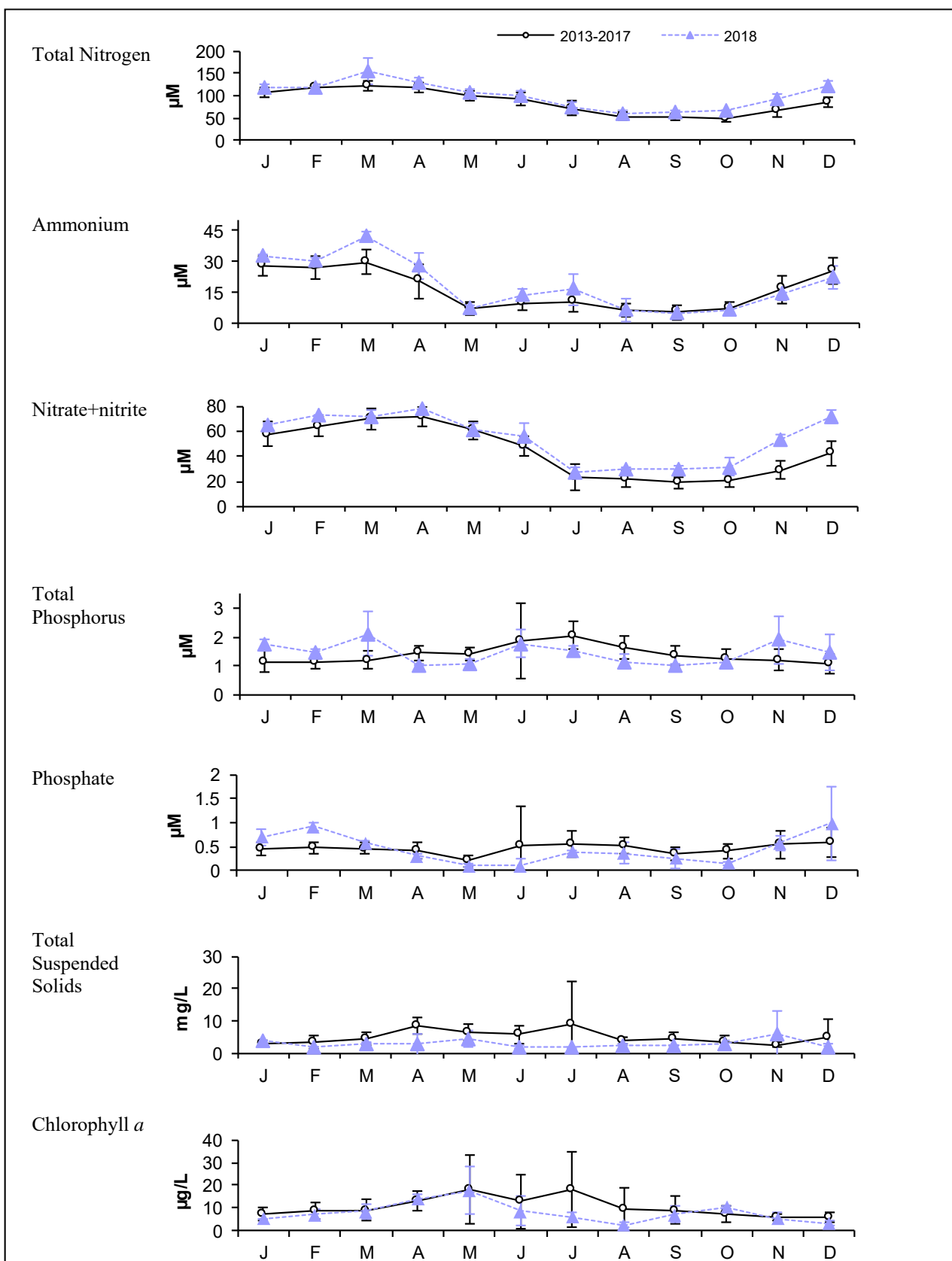


Figure 4-4. Monthly average nutrients, TSS and Chlorophyll 2013 – 2017 and 2018, Station 066, Boston Ave.

Error bars are ± 1 SD. Note different scales than Figures 4-3, 4-5 and 4-6 for most parameters.

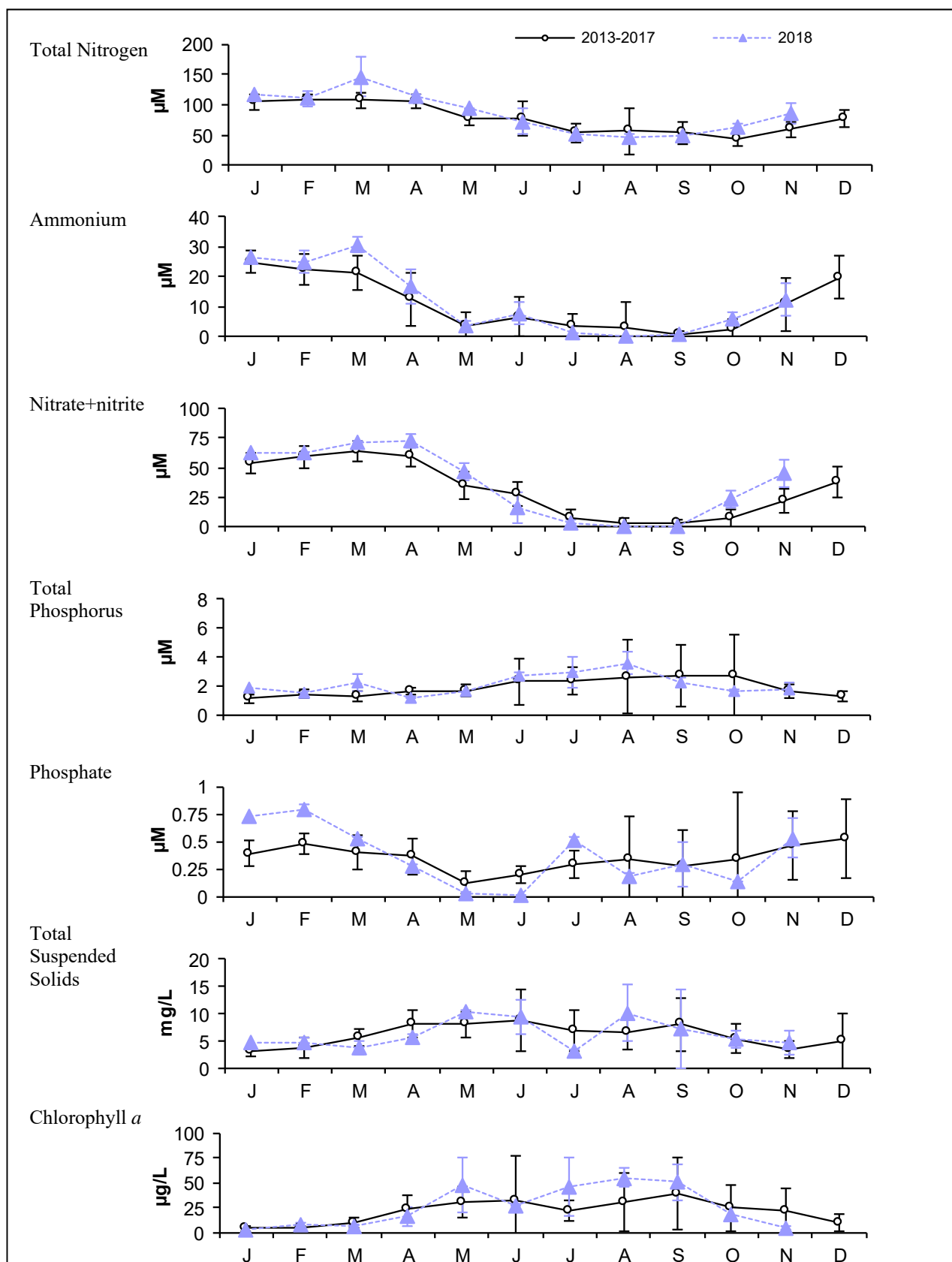


Figure 4-5. Monthly average nutrients, TSS and Chlorophyll 2013 – 2017 and 2018, Station 167, Amelia Earhart Dam (upstream/freshwater).

Error bars are ± 1 SD. Note different scales than Figures 4-3, 4-4 and 4-6 for most parameters.
No data available for December 2018 (frozen).

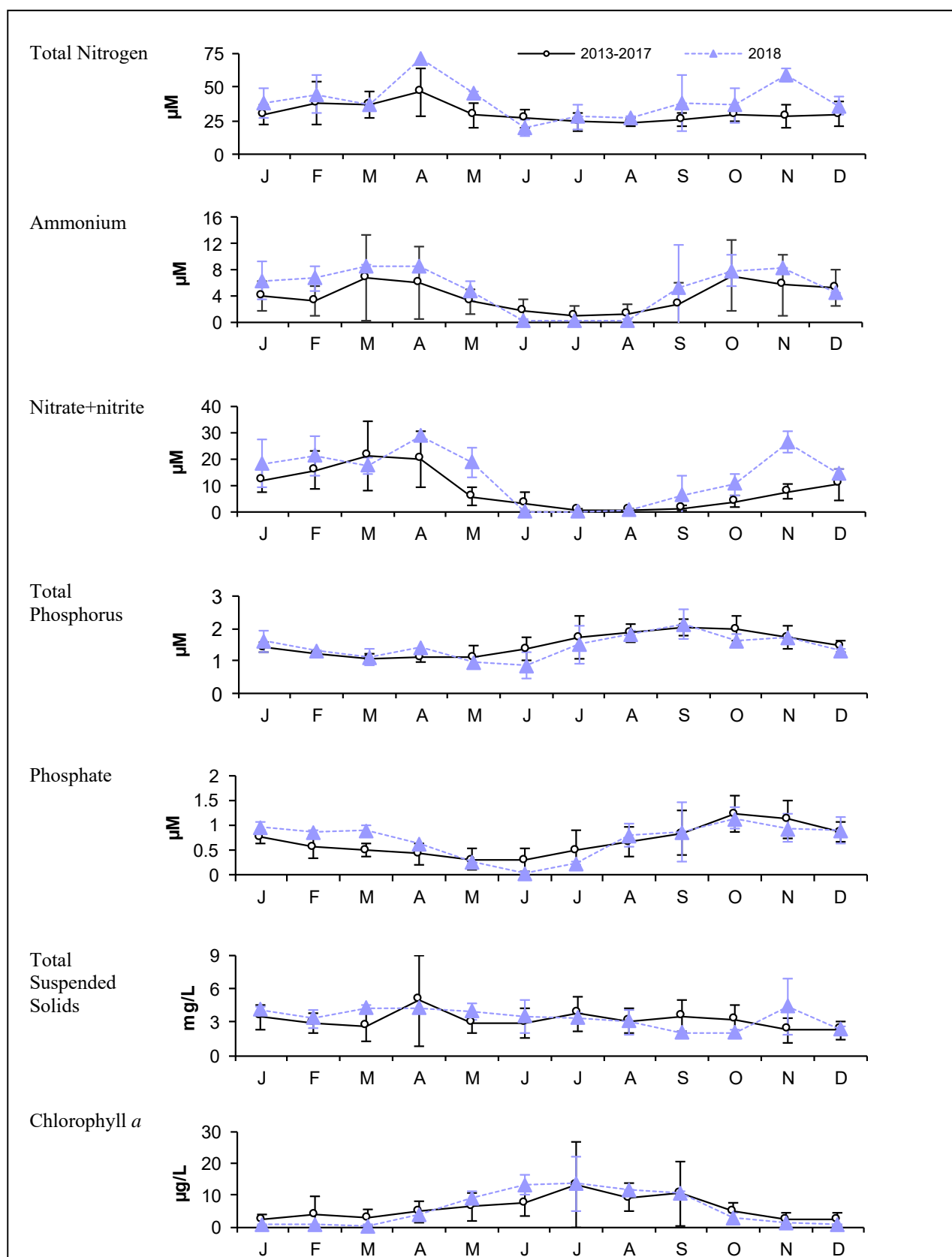


Figure 4-6. Monthly average nutrients, TSS and Chlorophyll 2013 – 2017 and 2018, Station 137, Mystic River mouth (marine).

Error bars are ± 1 SD. Note different scales than Figures 4-3, 4-4 and 4-5 for most parameters.

4.4.3 Bacterial water quality

Figure 4-7 shows the bacterial water quality at each location sampled in the Mystic River and Alewife Brook for 2018 for dry, damp, and wet weather. The rainfall conditions are derived, on a station by station basis, from the nearest rain gauge. For this area, the two gauges in use are the BWSC Charlestown gauge and the USGS Fresh Pond gauge. The uppermost graph in the figure shows percentile plots of *Enterococcus* counts for each location, arranged from upstream to downstream for 2018. The center graph shows percentile plots of *E. coli*, which is only monitored in the freshwater portion of the Mystic River, and the bottom graph fecal coliform, which is only monitored in the marine portion of the Mystic River in place of *E. coli*. As emphasized in Table 4-4, Mystic River and Alewife Brook sampling occurred more frequently following significant rain events in 2018 than in previous years, with 61% of samples taken in wet weather conditions.

As shown in Figure 4-7, all locations in Alewife Brook consistently failed to meet both *Enterococcus* and *E. coli* geometric mean standards in dry, damp, and wet weather in 2018. Bacteria concentrations at stations 083 (Mystic Lakes outlet, before the confluence with the Alewife Brook) and 057 (Alewife Brook/Mystic River confluence) exhibit a similar distribution between weather conditions, demonstrating little to no influence of Alewife Brook contamination on the Mystic River. Malden River station 176 met standards in dry and damp weather, but exhibited very high counts in wet weather. Fecal coliform results from the three marine stations demonstrated compliance in dry and damp conditions, and exceedances in wet weather at stations 052 and 069.

Geometric means for each indicator for 2013 - 2017 and 2018 appear in Table 4-6 (Alewife Brook) and 4-7 (Mystic River), for all weather conditions combined. Overall, annual geometric means did not meet water quality standards at most locations, and 2018 geometric means were higher than the previous five years. This is largely due to the higher than typical number of rainfall events in the region in 2018 and a targeted approach of sampling consecutive days following these events. Stations 067, 059, and 167 in the Lower Mystic Basin met standards for both indicators despite this wet weather bias. Station 056 (Medford Square between Craddock Bridge and I-93) exhibited the highest bacteria counts of any Mystic River station without influence of nearby CSOs. This is also reflected in the noticeably high wet weather counts at this location, as seen in Figure 4-7. Malden River station 176 did not meet state standards for either indicator. Annual geometric means did not meet standards at the six Alewife Brook stations. Results at Alewife Brook stations 172 (Mass. Ave. bridge) and 276 (new station downstream of SOM001A) were very similarly distributed. The highest bacteria counts in Alewife Brook were seen at station 277, upstream of four CSO outfalls near the Mass. Ave. bridge. Like the Charles River, *E. coli* counts are consistently higher than *Enterococcus* counts at all stations.

Stations 052 and 069, the two near-shore Mystic mouth stations downstream of Amelia Earhart Dam exceeded standards for both *Enterococcus* and fecal coliform, with 2018 geometric means much higher than the five-year average. Geometric means at Mystic mouth station 137 upstream of the Tobin Bridge met both standards.

The spatial and temporal change in *Enterococcus* concentrations in Alewife Brook and the Mystic River appear in Figure 4-8 through Figure 4-10. Figure 4-8 shows the impact of rainfall on the four river reaches on *Enterococcus* densities in 2018, along with locations near CSO outfalls. 2018 *Enterococcus* results were distributed similarly to recent years, but slightly elevated overall due to the wet year. In the Upper Mystic, standards were often met in dry and damp conditions, but often exceeded in wet weather, with little difference in distribution between light and heavy rain. Lower Mystic counts were very low in dry and damp conditions and often met following light and heavy rains. Still, wet weather counts in the Lower Mystic were higher in 2018 than recent, drier years. In the Alewife, even the Little River station 174 upstream of CSOs – as well as all other stations – fails to meet standards in dry, damp, and wet weather, suggesting persistent contamination not necessarily tied to CSOs. Station 052 at the Amelia Earhart Dam and the treated Somerville Marginal CSO facility outfall met standards in dry and damp weather, often met in light rain, but exceeded standards in heavy rain. It is important to note that stormwater enters the Somerville Marginal CSO facility outfall conduit before the discharge enters the Mystic River. Therefore, results at station 052 reflect ambient conditions in the river and the potential effects of treated CSO and untreated stormwater.

Results in Figures 4-9 (Alewife Brook) and 4-10 (remainder of the Mystic) are grouped by phases of the Long Term CSO Plan improvements and include the geometric mean counts in each rainfall condition. Figure 4-9 shows minimal changes in dry or damp *Enterococcus* counts in the Alewife, but decreases in the magnitude of exceedance in wet weather, particularly in the 2016-2018 period following completion of all LTCP-related construction in this region. *Enterococcus* results in Figure 4-10 show slight improvement over time in the Mystic River in dry and wet weather since the early 1990s, particularly in dry and light rain conditions. Changes in heavy rain conditions appear to be minimal.

Mystic River 2018 compliance rates with single sample State standards for both indicators are shown in Figures 4-11 (*Enterococcus*) and 4-12 (*E. coli*). Dots on the figure are the monitoring locations shown in Figure 4-1 and listed in Table 4-1. Compliance rates were generally high in dry and damp weather, with water quality impacts shown in wet weather. Station 056 near Medford Square exhibited very low compliance in wet weather without influence of nearby CSO. Mystic stations 057 and 066 near the confluence with Alewife Brook demonstrate the limited impact of Alewife Brook on the Mystic, despite poor compliance rates in Alewife Brook. Stations 059 and 167 near Amelia Earhart Dam and downstream of the Somerville Marginal CSO relief outfall were over 50% compliant in wet weather, higher than many Mystic and Charles River stations.

Alewife Brook 2018 compliance rates with single sample State standards for both indicators are shown in Figures 4-12 (*Enterococcus*) and 4-13 (*E. coli*). The dots shown on the maps correspond to the monitoring locations shown in Figure 4-1 and listed on Table 4-1. Compliance rates were generally low in all weather conditions, and were fairly similar at all stations in Alewife Brook, regardless of proximity to CSO outfall. All Alewife stations were below 20% compliant in wet weather, for both indicators. Like the Charles, some discrepancies in compliance between the two indicators exist, with stations near Massachusetts Avenue 0% compliant in damp weather for *Enterococcus*, but 50% compliant for *E. coli*.

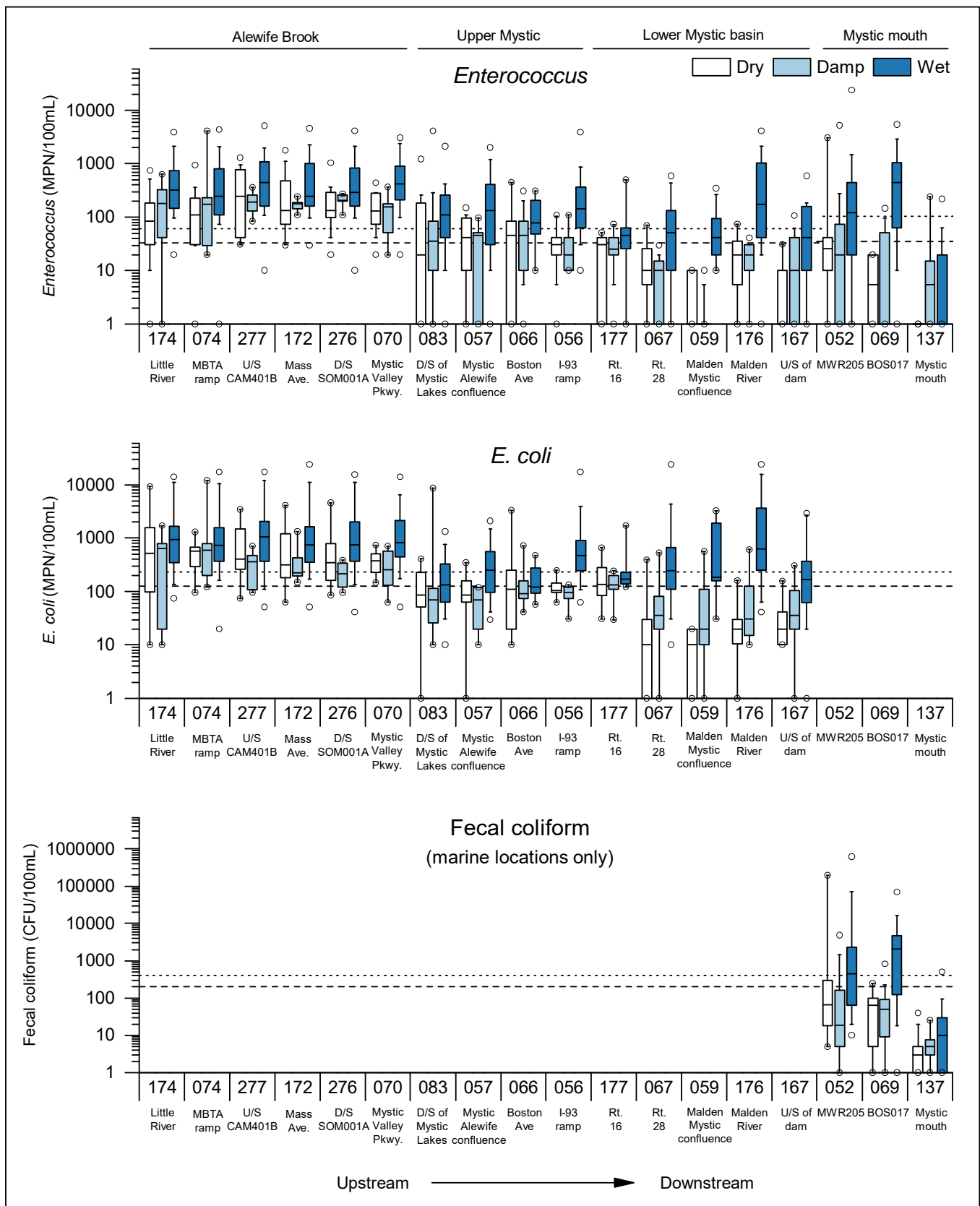


Figure 4-7. Indicator bacteria concentrations, Mystic River/Alewife Brook, 2018.

Dashed lines show MADEP *Enterococcus* and *E. coli* and the former fecal coliform geometric mean standards. Dotted lines show the single sample standards. Note that freshwater and marine *Enterococcus* standards differ. *E. coli* testing was discontinued in 2007 in marine waters for methodological reasons. Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; damp is everything in between. Rainfall conditions are derived from either the BWSC Charlestown or USGS Fresh Pond rain gauges. "D/S": downstream; "U/S": upstream.

Table 4-6. Geometric mean indicator bacteria, Alewife Brook, 2013 – 2017 and 2018.

All Alewife Brook stations are designated for shoreline sampling (including weekends), shaded.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) counts/100 mL DEP limit: 33 counts/100 mL ²		<i>E. coli</i> ¹ (95% CI) counts/100 mL DEP limit: 126 counts/100 mL	
			2013 – 2017	2018	2013 – 2017	2018	2013 – 2017	2018
174	Cambridge, Little River, upstream of Rt. 2 and off ramp to Alewife T station	S	182	58	153 (116-203)	218 (141-335)	696 (565-858)	689 (462-1028)
074	Cambridge, Little River, at off ramp to Alewife T station	S	183	58	123 (94-160)	203 (130-316)	694 (575-837)	711 (512-989)
277	Arlington, Alewife Brook, upstream of 4 CSO outfalls near Mass. Ave bridge.	S	13	58	226 (152-335)	341 (244-478)	567 (268-1199)	766 (543-1081)
172	Arlington, Alewife Brook, upstream of Massachusetts Ave bridge, midchannel	S	183	58	201 (157-258)	280 (204-383)	692 (571-840)	702 (499-987)
276	Arlington, Alewife Brook, downstream of SOM001A	S	13	58	209 (143-305)	280 (203-385)	580 (274-1227)	644 (462-899)
070	Arlington, Alewife Brook, off Mystic Valley Parkway bridge	S	183	58	269 (211-344)	284 (206-391)	784 (640-961)	695 (509-949)

Table 4-7. Geometric mean indicator bacteria, Mystic River, 2013 – 2017 and 2018.

Stations designated for shoreline sampling (weekends or unsafe boating conditions) are shaded.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) counts/100 mL DEP limit: 33 counts/100 mL ²		<i>E. coli</i> ¹ (95% CI) counts/100 mL DEP limit: 126 counts/100 mL	
			2013 – 2017	2018	2013 – 2017	2018	2013 – 2017	2018
083	Medford, upstream of confluence of Mystic River and Alewife Brook	S	270	82	21 (16-26)	50 (32-76)	73 (62-87)	114 (85-152)
057	Medford, confluence of Mystic River and Alewife Brook	S	148	58	32 (23-45)	67 (40-112)	122 (99-149)	158 (112-222)
066	Medford, Mystic River, Boston Ave bridge	S	129	25	21 (16-29)	37 (19-74)	109 (90-131)	129 (82-202)
056	Medford, Mystic River, upstream of I-93 bridge	S	149	57	15 (11-22)	93 (61-139)	186 (148-234)	318 (231-436)
177	Medford, Downstream of Rt. 16 bridge, mid-channel	S	122	25	8 (5-12)	21 (11-40)	165 (125-217)	155 (113-213)
067	Medford, Mystic River, Rt. 28 bridge	S	148	57	5 (3-7)	18 (11-31)	50 (37-68)	112 (65-191)
059	Everett, confluence of Mystic and Malden Rivers	S	127	24	5 (3-7)	6 (2-16)	41 (30-55)	66 (25-169)
176	Malden River, upstream of Rt. 16 bridge	S	146	57	13 (8-20)	70 (40-122)	122 (86-173)	262 (142-484)
167	Medford, Mystic River, upstream side of Amelia Earhart Dam	S	146	55	4 (3-6)	14 (8-24)	48 (37-64)	80 (50-126)
052 ²	Somerville, Mystic River, near Somerville Marginal CSO facility (MWR205) – marine	S	160	38	14 (10-21)	72 (30-169)	61 (41-88)	341 (122-948)
		B	80	13	6 (3-9)	11 (3-36)	18 (11-29)	26 (13-49)
069 ²	Charlestown, near Schrafft's Center at BOS-017 outfall - marine	S	160	37	10 (6-14)	49 (19-125)	50 (36-69)	264 (106-655)
		B	76	6	2 (1-4)	3 (0-17)	8 (6-12)	15 (3-64)
137 ²	Mystic River, upstream of Tobin Bridge – marine/Inner Harbor	S	117	23	2 (1-3)	3 (1-8)	10 (7-13)	14 (7-28)
		B	117	23	1 (0-1)	1 (0-2)	2 (1-2)	1 (1-3)

¹Results in italics are fecal coliform, not *E. coli*.² Geometric mean limit for *Enterococcus* is 35 MPN/100 mL in marine water.

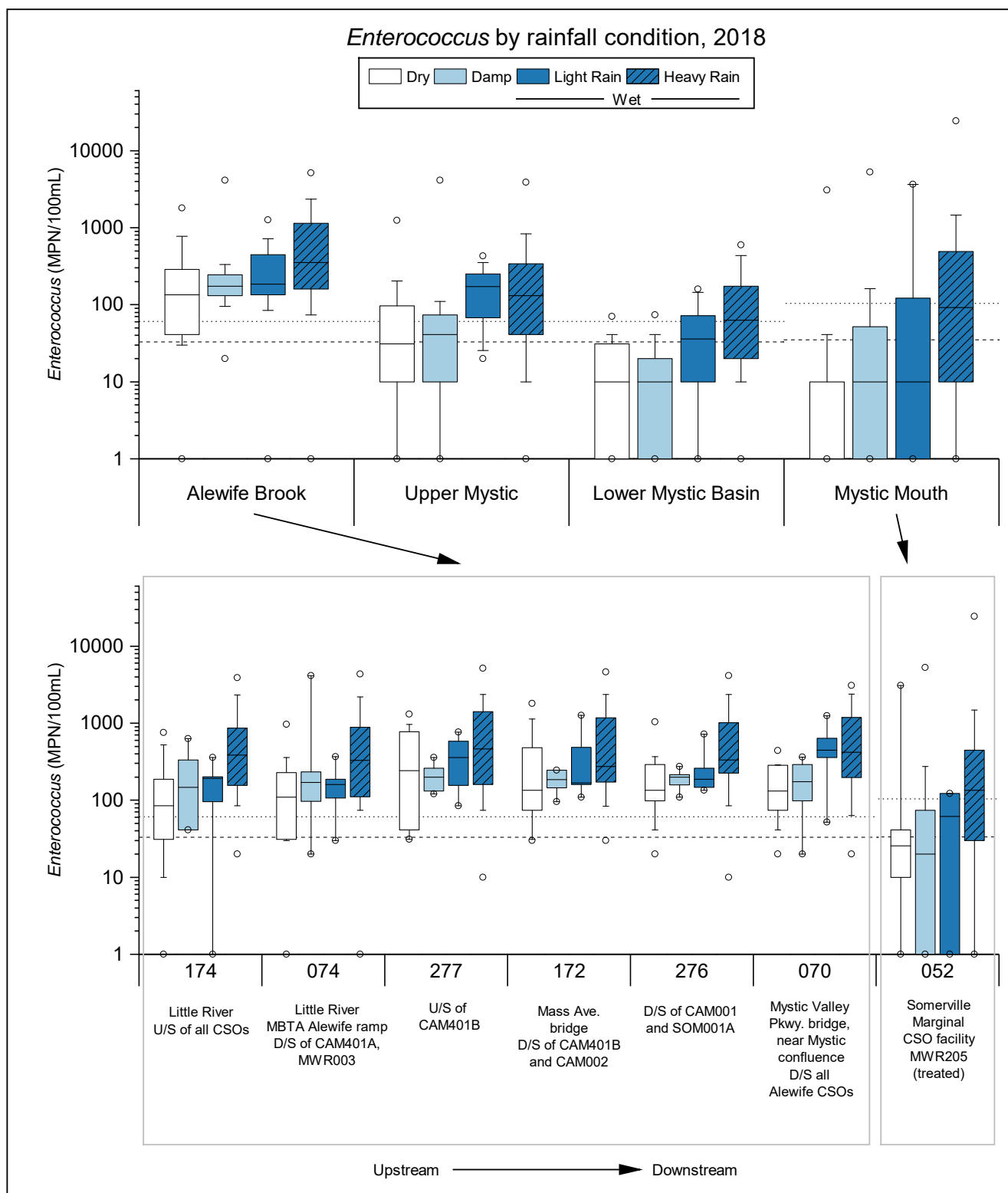


Figure 4-8. Enterococcus by rainfall condition, Mystic River/Alewife Brook, 2018.

Dashed lines show MADEP state geometric mean standards (33 MPN/100mL and 35 MPN/100mL for freshwater and marine). Dotted lines show single sample State standards (61 MPN/100mL and 104 MPN/100mL for freshwater and marine). Rainfall is from the BWSC Charlestown or USGS Fresh Pond gauge. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days. “D/S”: downstream; “U/S”: upstream.

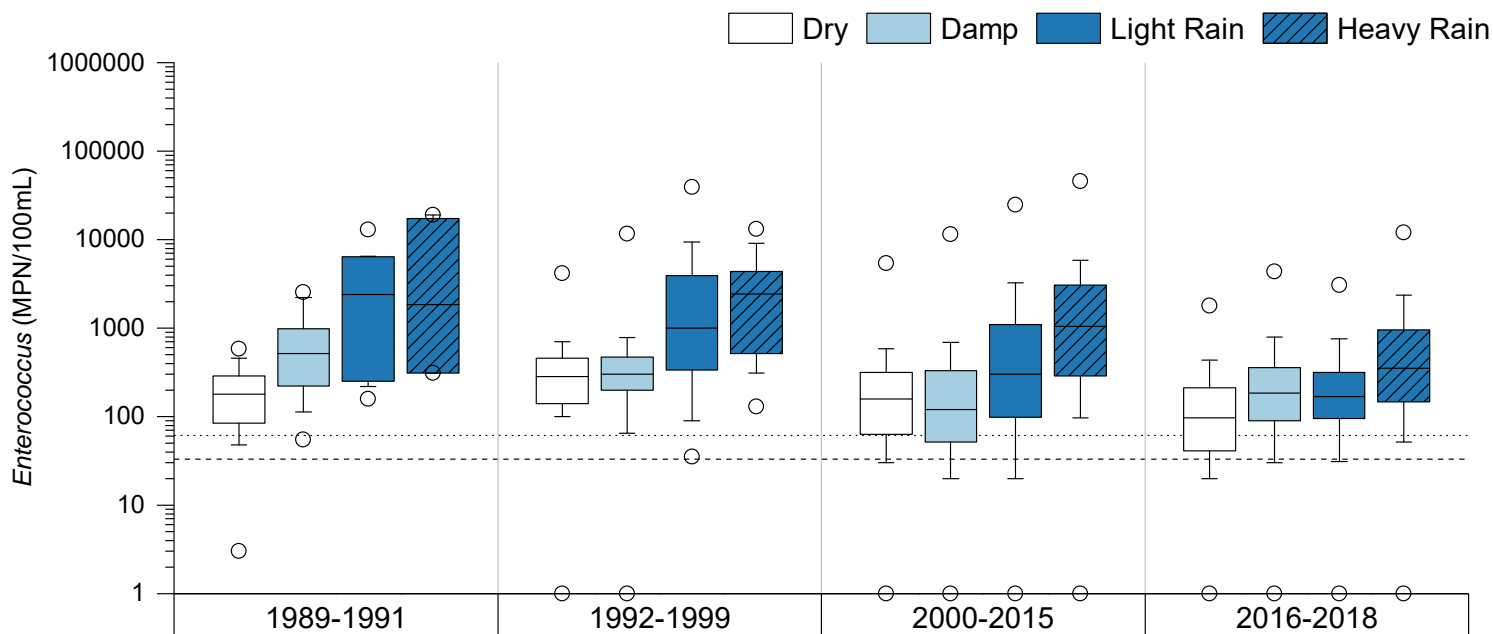


Figure 4-9. *Enterococcus* over time, Alewife Brook by phase of CSO LTCP and rainfall condition. Dashed line shows State geometric mean standard (33 MPN/100mL), dotted line shows single sample standard (61 MPN/100mL). Data includes results for stations 174, 074, 277, 172, 276 and 070. Rainfall is NOAA rainfall from Logan airport. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days.

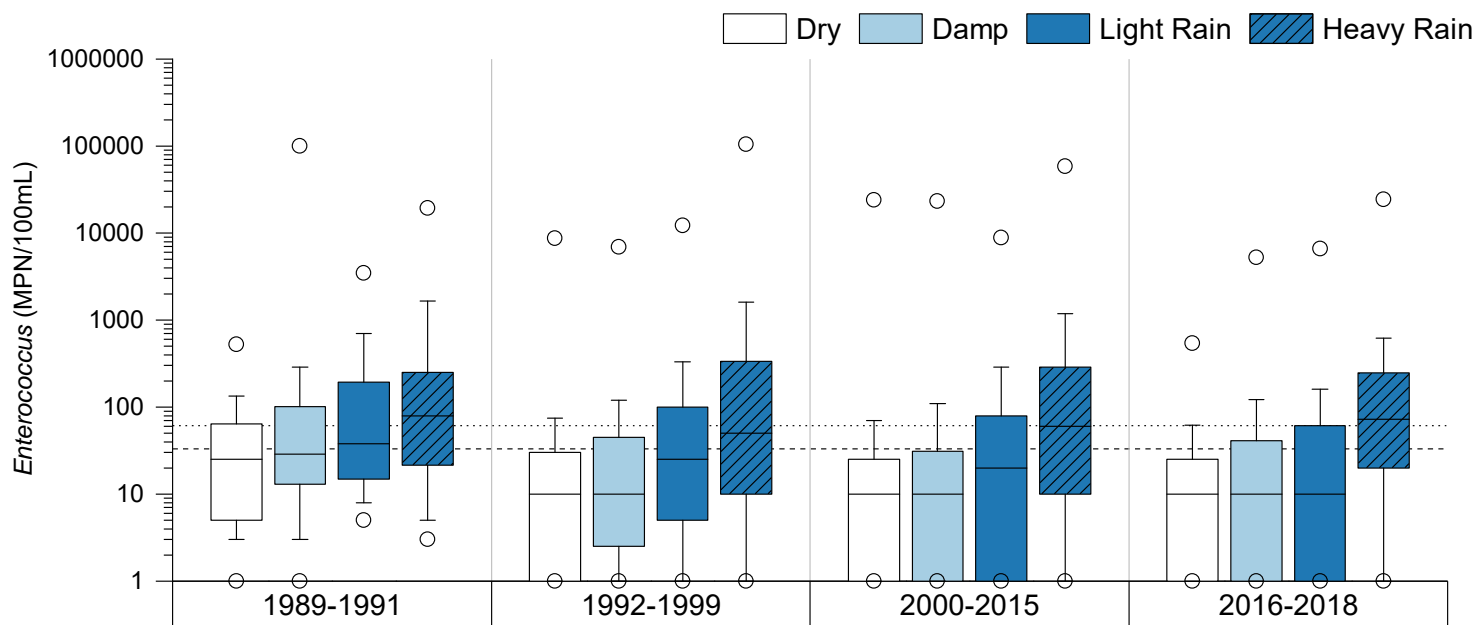


Figure 4-10. *Enterococcus* over time, Mystic River by phase of CSO LTCP and rainfall condition. Dashed line shows State geometric mean standard (33 MPN/100mL), dotted line shows single sample standard (61 MPN/100mL). Data includes results for all Mystic River stations in Table 4-1 excepting Alewife Brook. Rainfall is NOAA rainfall from Logan airport. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days.

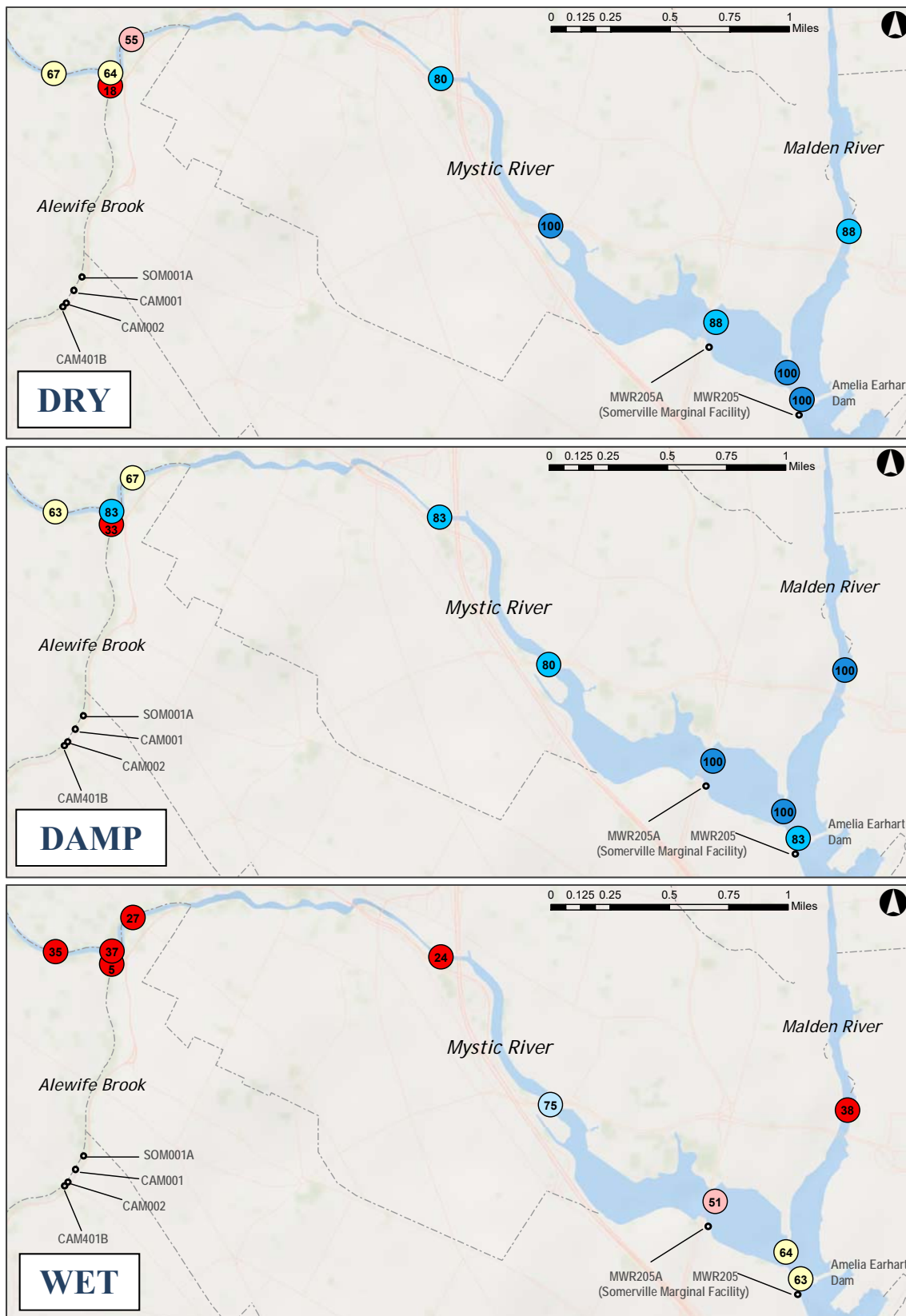


Figure 4-11. Mystic River *Enterococcus* percent compliance by weather condition, 2018.

Compliance with 61 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station. Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Alewife Brook station 070 near Mystic River confluence included for reference.

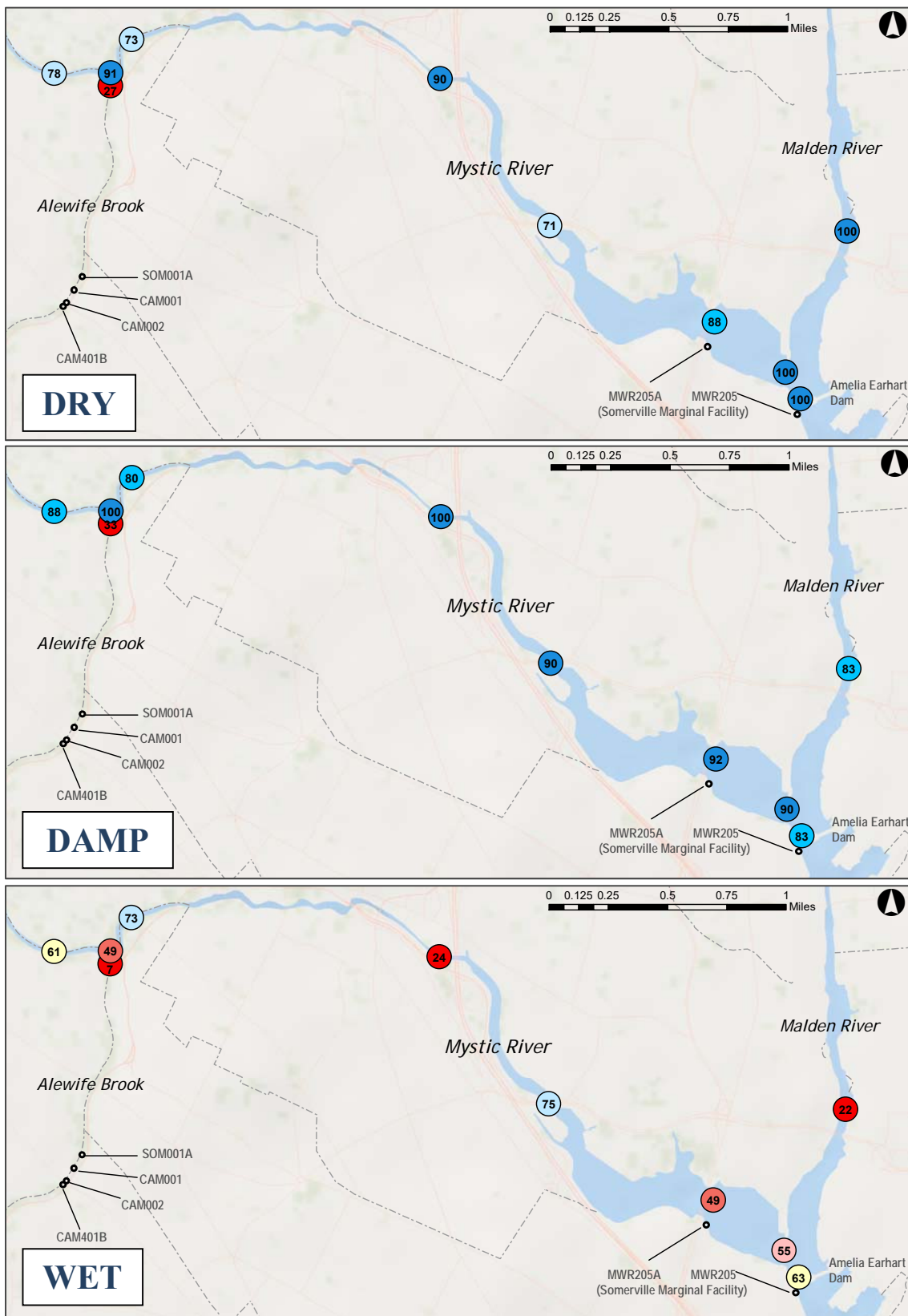


Figure 4-12. Mystic River *E. coli* percent compliance by weather condition, 2018.
 Compliance with 235 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station.
 Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Alewife Brook station 070 near Mystic River confluence included for reference.

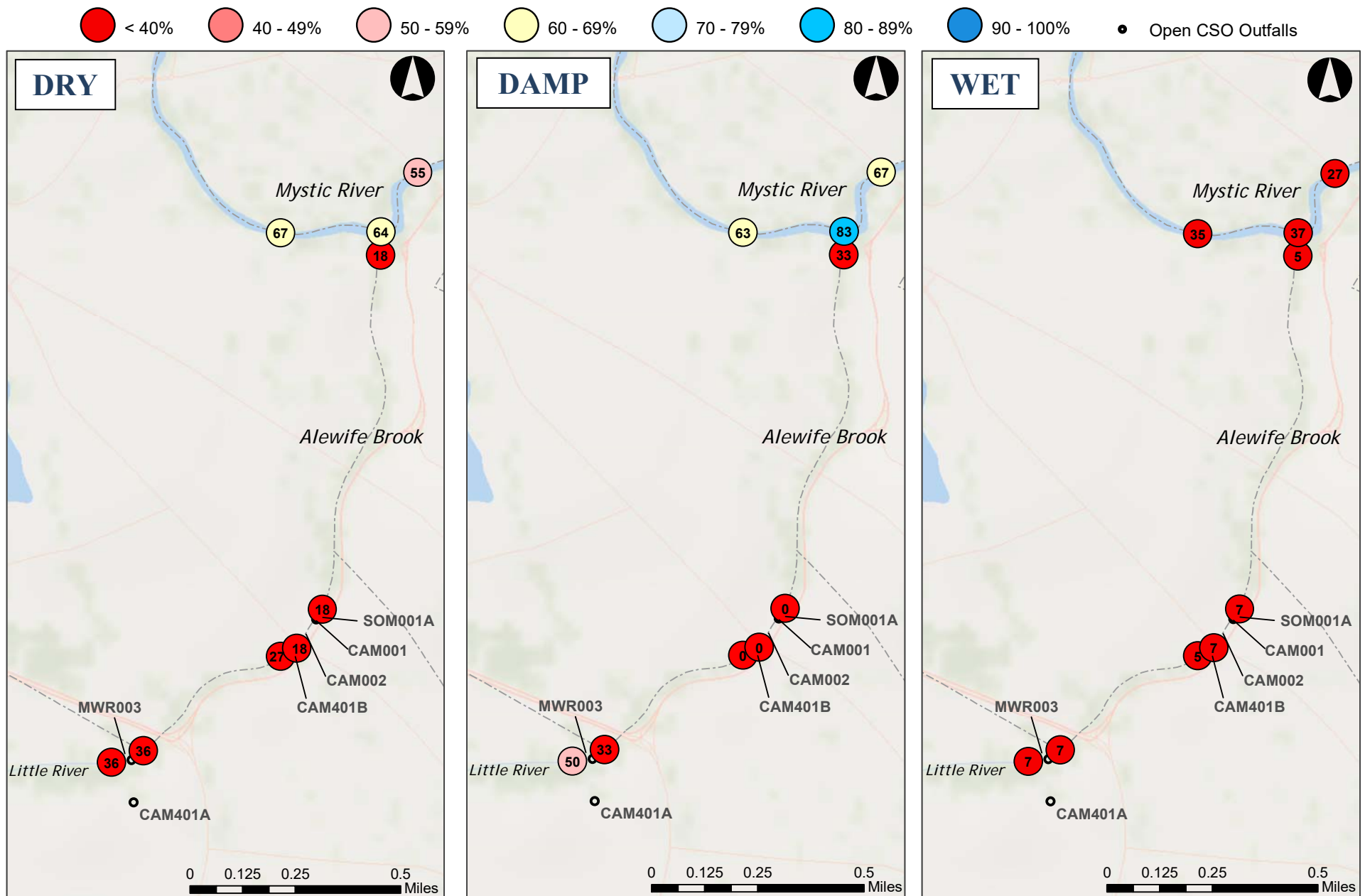


Figure 4-13. Alewife Brook *Enterococcus* percent compliance by weather condition, 2018.

Compliance with 61 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station. Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Mystic River stations 083, 057, and 066 included for reference.



Figure 4-14. Alewife Brook *E. coli* percent compliance by weather condition, 2018.

Compliance with 235 MPN/100mL single sample State standard. Rainfall is from nearest rain gauge to station. Dry: no rainfall for previous 3 days; Wet: > 0.5" previous 3 days or > 0.15" previous two days; Damp is everything in between. Mystic River stations 083, 057, and 066 included for reference.

4.5 Summary of Mystic River/Alewife Brook water quality

In general, bacterial water quality in the Mystic River and Alewife Brook was similar in pattern to recent years, with elevated counts due to the frequency of rain events and targeted sampling directly following them. *Enterococcus* and *E. coli* counts in 2018 were higher than those in the previous five years..

Bacteria concentrations in the Mystic River met standards for much of the upper and lower Mystic Basin and Mystic River mouth in dry and damp weather, but did not meet limits in wet weather conditions at most locations. Bacteria concentrations in Alewife Brook fail to meet standards in any weather condition both upstream and downstream of CSOs in that region. Additionally, station 174 in the Little River, upstream of all Alewife CSOs, did not meet standards in any weather condition, suggesting a non-CSO contamination problem that is affecting the entire length of the Brook.

With the exception of Alewife Brook, most locations in the Mystic River met *Enterococcus* and *E. coli* geometric mean limits in dry and damp conditions. While the Alewife did not meet *Enterococcus* or *E. coli* standards in dry or wet weather, conditions in the main stem downstream of the Alewife/Mystic confluence suggest a limited influence of Alewife Brook on bacterial water quality in the Mystic River.

In 2018, surface DO conditions met standards at all Mystic River stations. Bottom water DO concentrations were similar to 2017, meeting the State standard at most locations. Clarity results were generally poor, except in the marine portion downstream of the Amelia Earhart Dam.

2018 nutrient levels were largely similar to previous years, with monthly concentrations near long term averages. Nutrient sample results highlighted an elevated algae event in the Lower Mystic Basin in late summer, during which nutrient results were generally very low. Contrary to recent years, the Upper Mystic did not experience a significant summer algae bloom in 2018, with peak chlorophyll *a* values recorded in April and May at those stations.

5 2018 Storm Sampling Summary

Beginning in 2017, MWRA instituted a comprehensive storm sampling program building on the routine monitoring program which has been in place since 1989. The two primary enhancements are sampling on weekends in addition to weekdays during and after storm events to minimize data gaps, and the utilization of a subset of sampling locations that can be sampled from shore in the event of inclement weather that would prevent, for safety reasons, the usual method of sampling from boat. A given region is typically sampled for five consecutive days following a rain event, unless an additional storm in that period spurred a schedule adjustment. Finally, storm sampling was given a high priority, so sampling in the aftermath of a storm frequently “bumped” other sampling projects into lower places in the queue.

In 2018, MWRA sampled following 16 significant storms beyond the smaller rain events that are often captured by the routine nature of the sampling program. These include the four storms that resulted in discharge at the Cottage Farm CSO Facility. Sampling following the largest storms (> 2.0 inches) was focused in the Charles in 2018 to capture conditions in the river following a potential discharge at Cottage Farm. Still, there were twice as many of 1.0 – 2.0 inch rainstorms in 2018 than in the Typical Year, resulting in a wide array of storms captured in both the Mystic/Alewife and Charles River regions.

5.1 2018 bacteria counts by time period and storm size

Figures 5-1 through 5-8 present bacteria counts for both *E. coli* and *Enterococcus* in the Charles and Mystic/Alewife regions following varied storm events. Results are binned first by the total rainfall of the most recent storm at a station’s nearest rain gauge, and then by the hours after the start of that storm that the sample was collected. This allows a comparison of the magnitude and duration of wet weather impacts by region, bacterial indicator, and storm size. The bins for total rainfall are dictated by those in the Typical Year (Table 1-1), and hours after storm are in 12-hour increments up to 3 days, then by 24-hours to 5 days and beyond. Note that these are percentile plots as explained by Figure 2-1, but as the number of samples is smaller, the 10th and 90th percentile “whiskers” have been omitted.

5.1.1 Charles River

For the Charles River, the results described above are further grouped by region. The following Figures 5-1 and 5-3 (top) contain results from stations upstream of any CSO outfalls, while the bottom Figures 5-2 and 5-4 include stations from the CAM005 CSO outfall to the Charles River Dam. Approximately 200 results are included in the upstream figures, and 700 results in the downstream figures. Sample counts are highest in storms < 0.25” and lowest in storms > 2.0” due to the relative frequency of these events.

In both regions for both indicators, impacts in smaller storms (< 0.5”) are varied and of relatively short duration. Both indicators display a similar pattern relative to their respective standards. In larger storms, peak concentrations tended to occur 12-36 hours after the onset of rain, when stormwater and potential CSO impacts would be at their greatest. The magnitude of impact was higher in the region upstream of all CSOs, indicating non-CSO sources of contamination. As expected, the duration of impact increased with storm size, with results typically returning to baseline around 72 hours, even in the largest storms. The greatest magnitude and duration of impact was observed in 1.0 – 2.0” storms; the lower level of impacts from storms > 2.0” may be from the increased dilution.

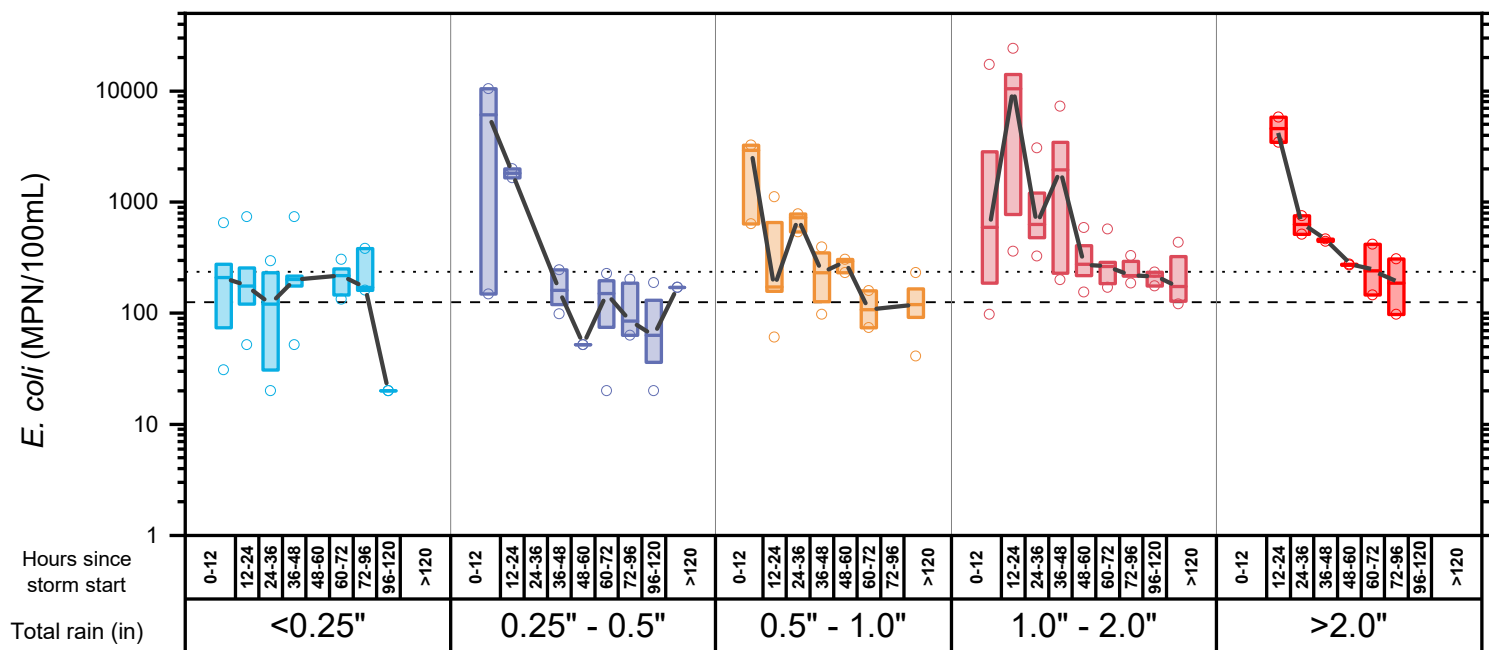


Figure 5-1. 2018 *E. coli* counts at Charles River stations upstream of all CSOs by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the single sample standard of 235 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All four stations upstream of the CAM005 CSO outfall are included (012, 001, 144, 002).

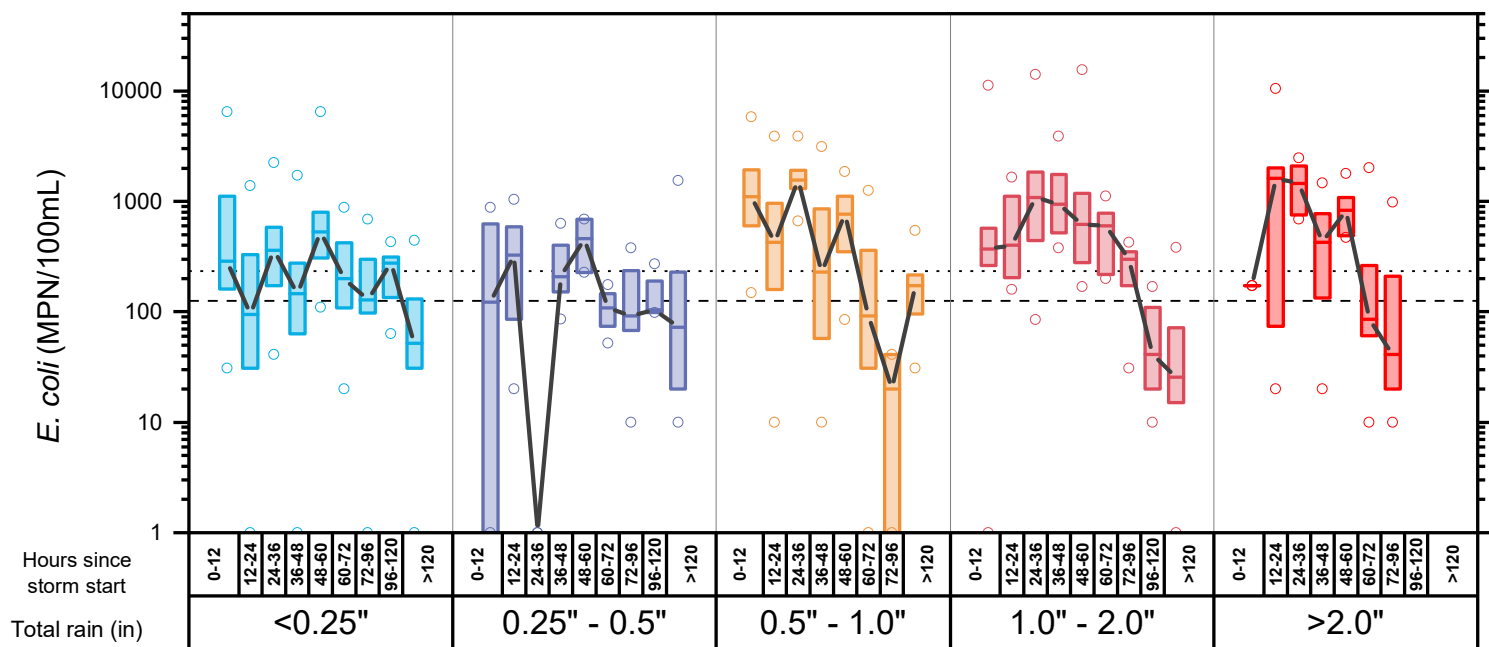


Figure 5-2. 2018 *E. coli* counts at Charles River stations in reaches downstream of CSOs by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the single sample standard of 235 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All 12 stations downstream of the CAM005 outfall are included. All storms are included, both with and without CSO discharges.

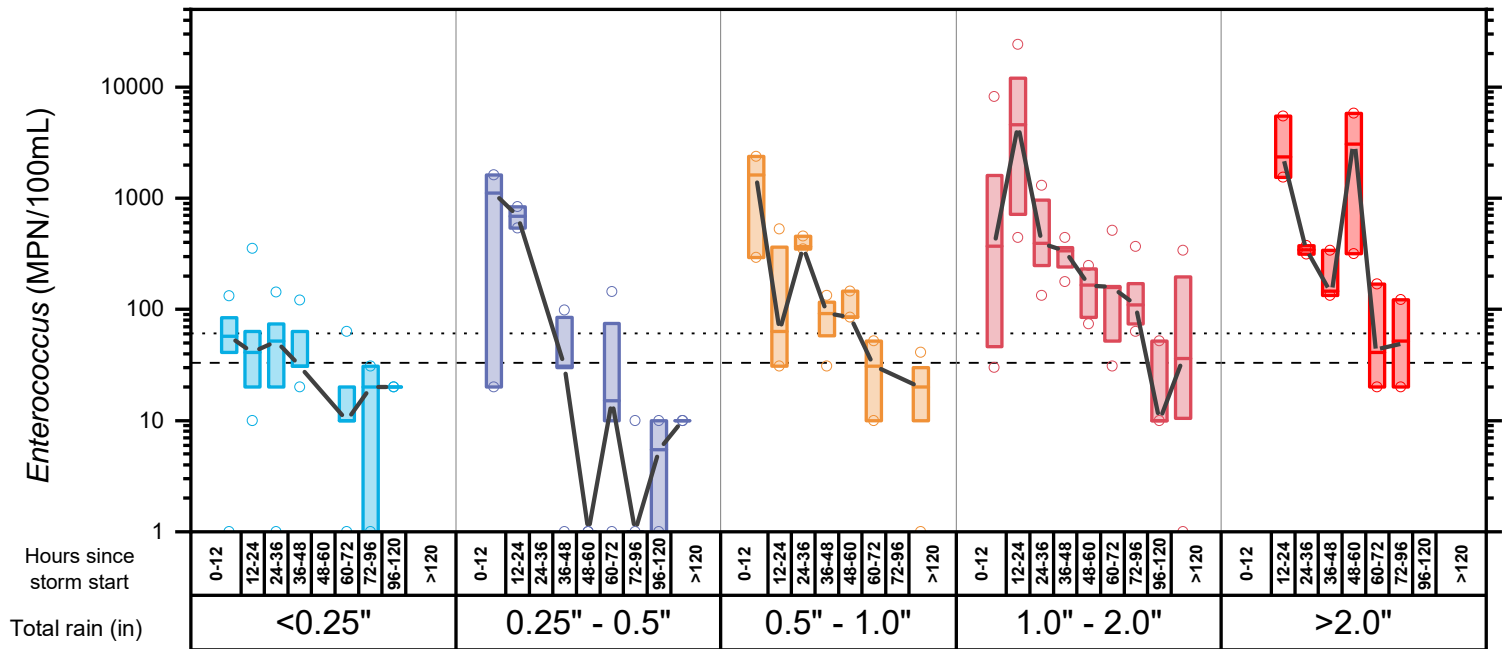


Figure 5-3. 2018 *Enterococcus* counts at Charles River stations upstream of all CSOs by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 33 MPN/100mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All four stations upstream of CAM005 CSO outfall are included (012, 001, 144, 002).

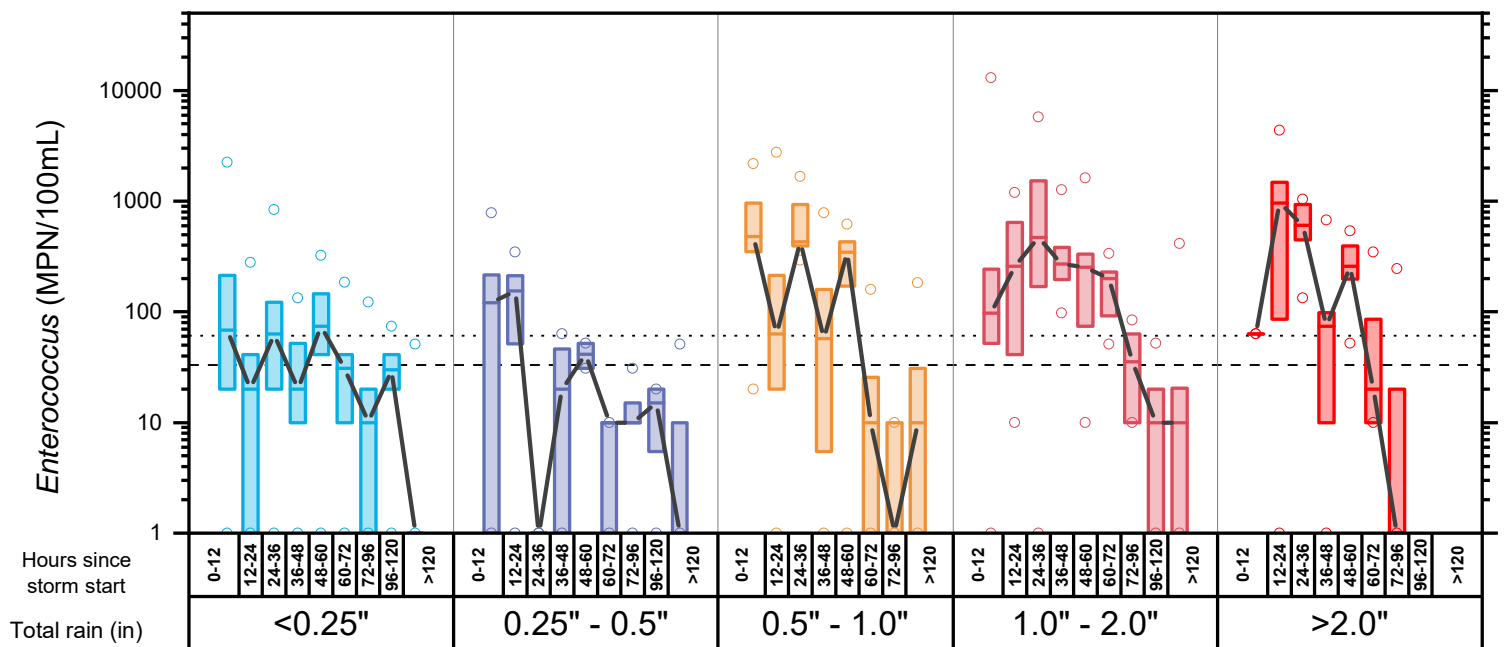


Figure 5-4. 2018 *Enterococcus* counts at Charles River stations in reaches downstream of CSOs by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 33 MPN/100mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All 12 stations downstream of CAM005 CSO outfall are included. All storms are included, both with and without CSO discharges.

5.1.2 Mystic River & Alewife Brook

The following Figures 5-5 and 5-7 (top) contain results from all Alewife Brook stations, while the bottom Figures 5-6 and 5-8 include all freshwater Mystic River stations. There were no storms greater than 2.0" sampled in this region in 2018. Sample counts are fairly evenly distributed between storm sizes, with the largest amount of samples taken following 0.5" – 1.0" storms, particularly in Alewife Brook.

As discussed in Chapter 4, stations in Alewife Brook often fail to meet state standards in all weather conditions, so the wet weather impacts here should be evaluated by a return to baseline conditions approximated by the >120 hour category. In 2018 wet weather, Alewife Brook exhibits a more rapid increase and decrease in bacteria counts than the Mystic River, as flows increase dramatically in the shallow, narrow Alewife Brook. In 2018, the Mystic River saw little to no impact from storms < 0.25", and roughly 36-48 hours of impact from storms between 0.25 and 1.0". As expected, the largest storms resulted in the greatest bacteria counts and duration of impact, with a secondary peak occurring around 72 hours in the Mystic before returning below state standards.

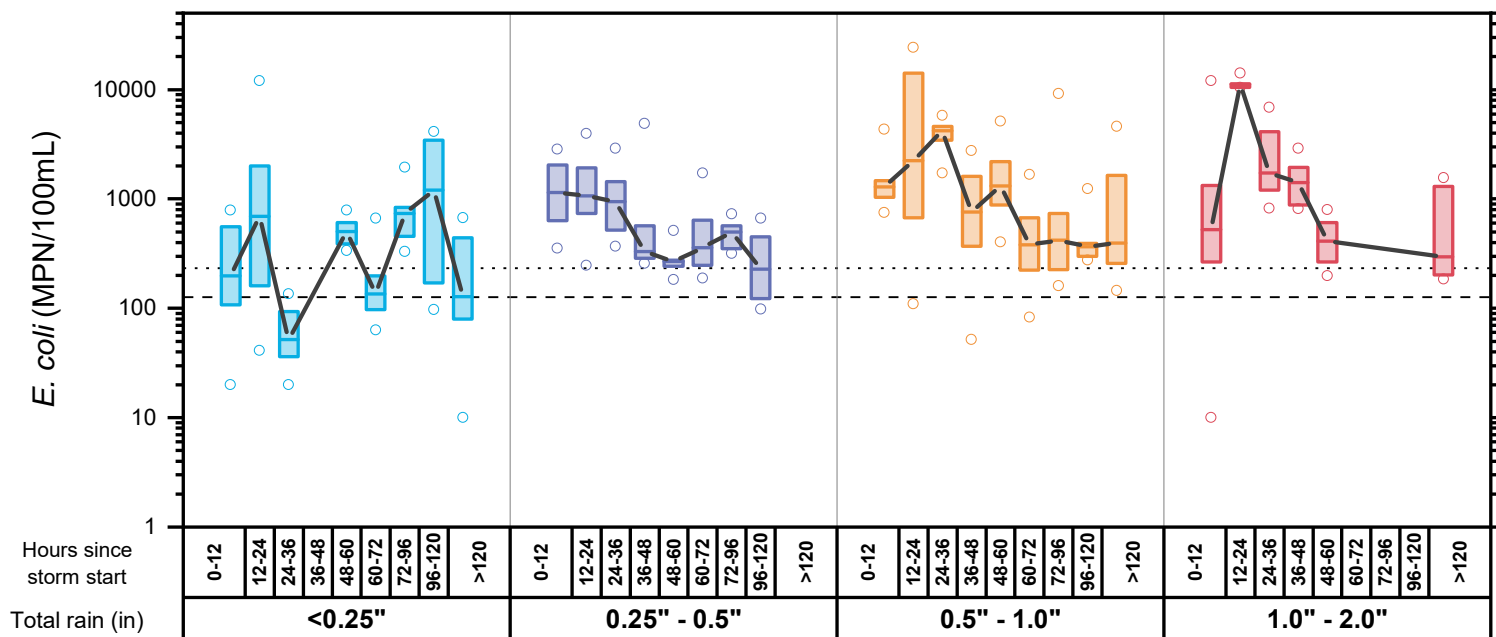


Figure 5-5. 2018 *E. coli* counts in Alewife Brook by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the single sample standard of 235 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection.

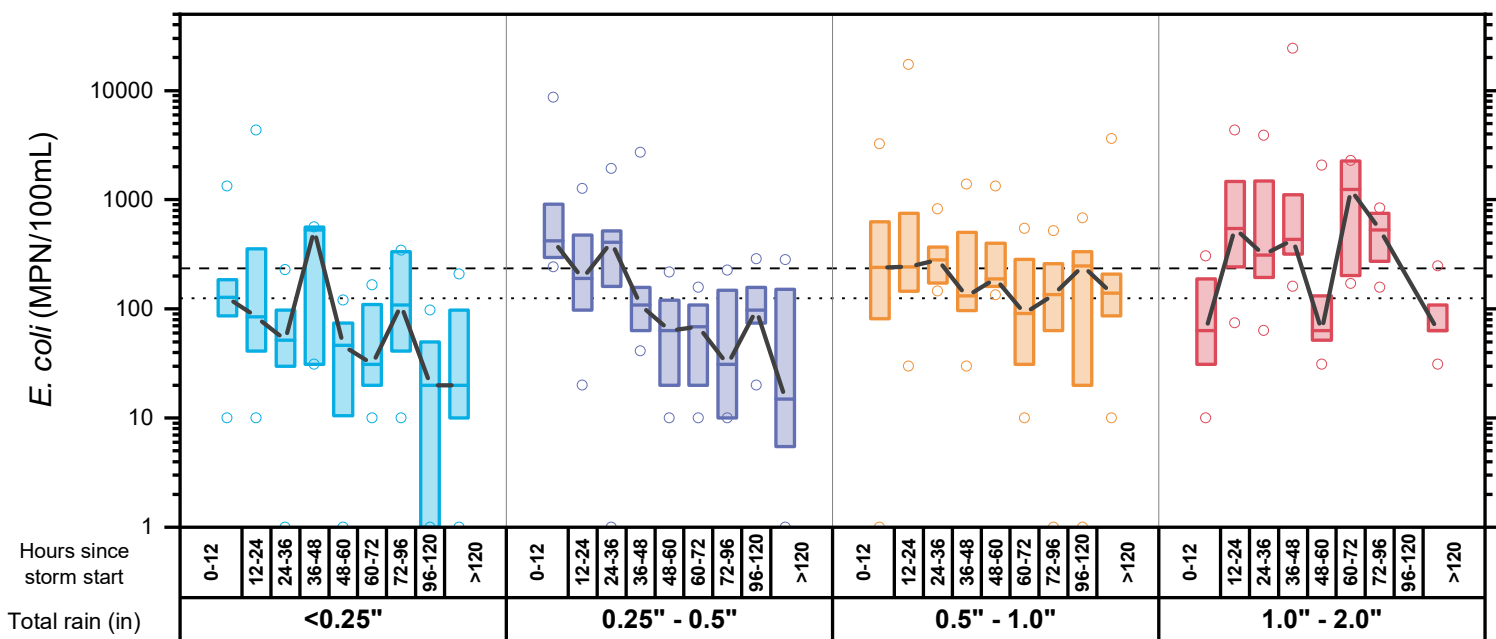


Figure 5-6. 2018 *E. coli* counts in the Mystic River by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the single sample standard of 235 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. Alewife Brook and Malden River stations not included.

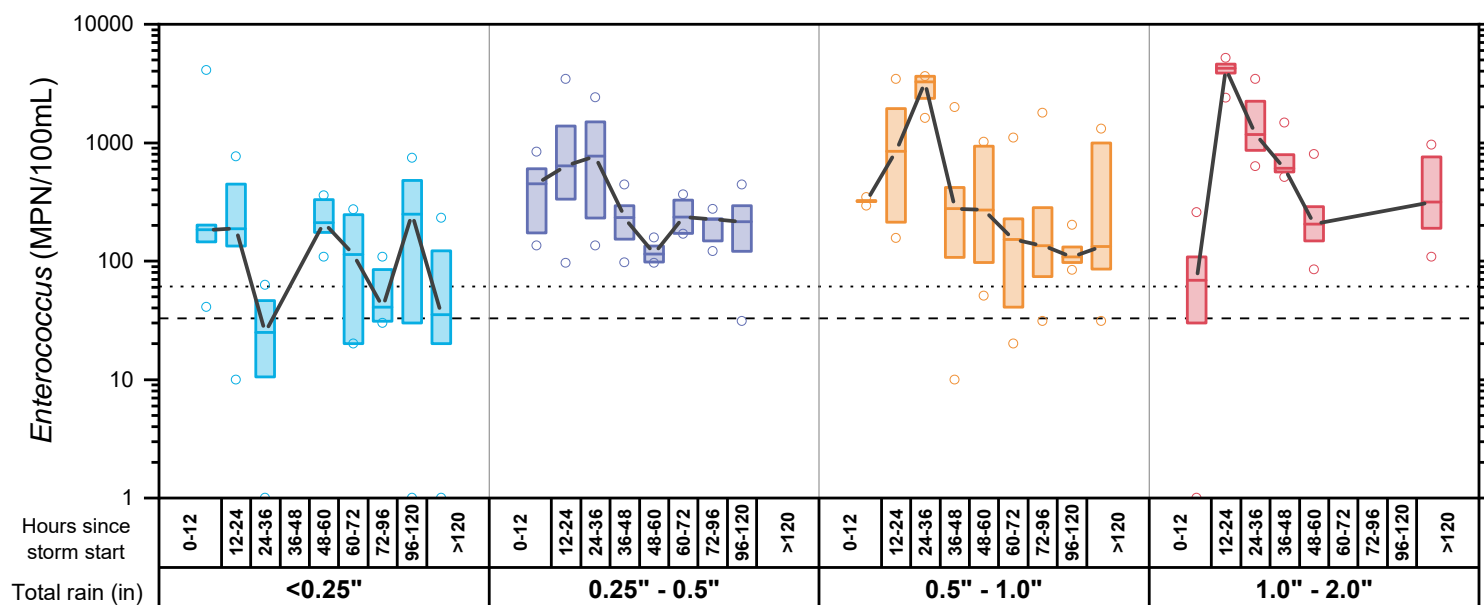


Figure 5-7. 2018 *Enterococcus* counts in Alewife Brook by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 33 MPN/100mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection.

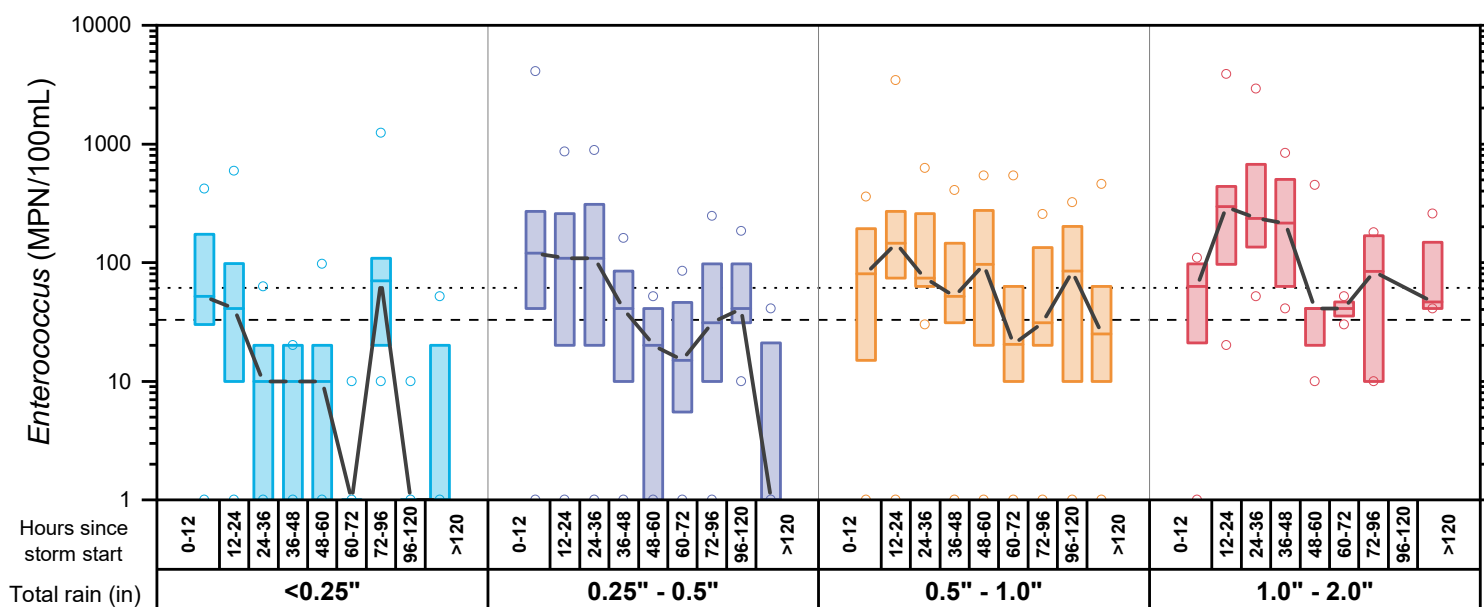


Figure 5-8. 2018 *Enterococcus* counts in the Mystic River by storm size and hours after start of rain.

Dashed line shows MADEP freshwater geometric mean standard of 33 MPN/100mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. Alewife Brook and Malden River stations not included.

5.2 Storm comparisons

5.2.1 Charles River

This section contains a more detailed look at sampling results following three specific storm events in the Charles River in 2018. Although obviously no two (or three) storms are the same, these storms were selected because all three were relatively large (> 1.0 inch) in terms of total rainfall. Each storm also resulted in different discharge patterns from the CSOs on the river. The first storm (July 17) resulted in CSO discharges at most outfalls, the second (September 18) resulted in CSO discharges at a subset of those outfalls, and the third storm (October 27) resulted in no CSO discharges to the Charles.

5.2.1.1 July 17, 2018

For both indicators, the Upper Basin of the Charles showed the highest counts for the day after the storm (Figures 5-9 and 5-10 for *Enterococcus* and *E. coli*, respectively; storm data in Table 5-1). Site 003 is just downstream of the CAM005 outfall, which discharged 0.82 million gallons on July 17.

Enterococcus counts at this location were lower than at an upstream location (002) on July 18. The 003 results were the highest *E. coli* counts recorded that day, followed by counts at 002. Counts of both indicators were elevated at location 006, downstream of Cottage Farm, which discharged 11.19 MG of disinfected CSO, on July 17 (Table 5-2; NPDES sampling of the Cottage Farm effluent had a geometric mean of 218 MPN/100mL for *Enterococcus* and 565 MPN/100mL for *E. coli*). The bacteria counts for the Cottage Farm effluent were lower than all except the most downstream stations on July 18.

Enterococcus counts at nearly all locations dropped on July 19, but some held steady, some decreased, and one increased over the following days. *E. coli* counts decreased over that same period. Site 145, near the Stony Brook outlet (MWR023) had high counts on July 18, but standards were met for both indicators by July 19. Counts at site 009, which is closest to the MWR018, MWR019, and MWR020 outfalls, were also elevated on July 18. However, *Enterococcus* counts fell quickly, and were either nondetects or 10 MPN/100mL for the rest of the sampling period. *E. coli* counts did not decrease as quickly, but they met the single sample standard by the next day, July 19.

Figure 5-11 shows, that on average, Charles River samples met geometric mean standards for both *Enterococcus* and *E. coli* by the third day after the storm, July 20.

On July 22, at the end of this sampling period, rain fell again from 04:00 to 11:00 (all times in this section are in Eastern Standard Time). No CSO discharges were recorded by MWRA meters during that storm. The increased counts of both indicators at a number of locations reflects that this rain was before and during sampling.

Table 5-1. Rainfall Characteristics for July 17, 2018 Storm.

Gauge	Storm Start (July 17, EST)	Storm End (July 18, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Ward St (MWRA)	12:45	02:00	13.25	2.26	0.33	0.96
Allston (BWSC)	13:00	02:00	13	2.39	0.41	1.14
Charlestown (BWSC)	12:45	02:00	13.25	2.27	0.35	0.99
Fresh Pond (USGS)	13:00	06:15	17.25	2.03	0.25	0.67

Table 5-2. CSO Discharges in the July 17, 2018 Storm from MWRA meter records.

Outfall	Discharge Date	Duration (hrs:min)	Volume (MG)	Notes
CAM005	7/17/18		0.82	
MWR018	7/17/18	0:55		Level-only meter, no volume estimate
MWR019	7/17/18	0:55		Level-only meter, no volume estimate
MWR020	7/17/18	1:00		Level-only meter, no volume estimate
MWR201 (Cottage Farm)	7/17/18	2:20	11.19	Treated
MWR023	7/17/18			Upstream regulators indicate CSO discharge, difficult to quantify volume and duration as CSO is mixed with stormwater.

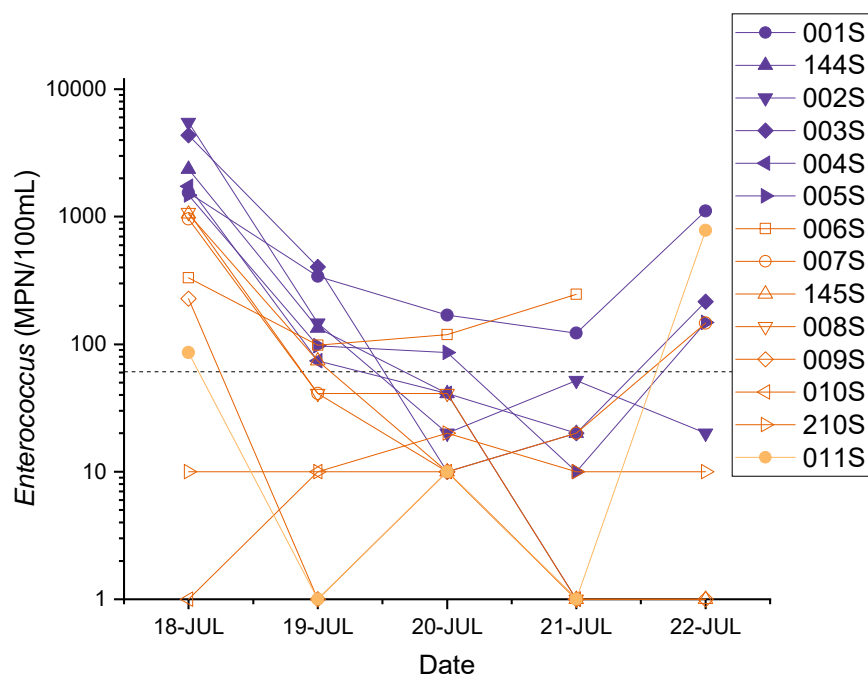


Figure 5-9. Charles River *Enterococcus* counts, July 18-22, 2018.

Time series of *Enterococcus* counts after the July 17 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL.

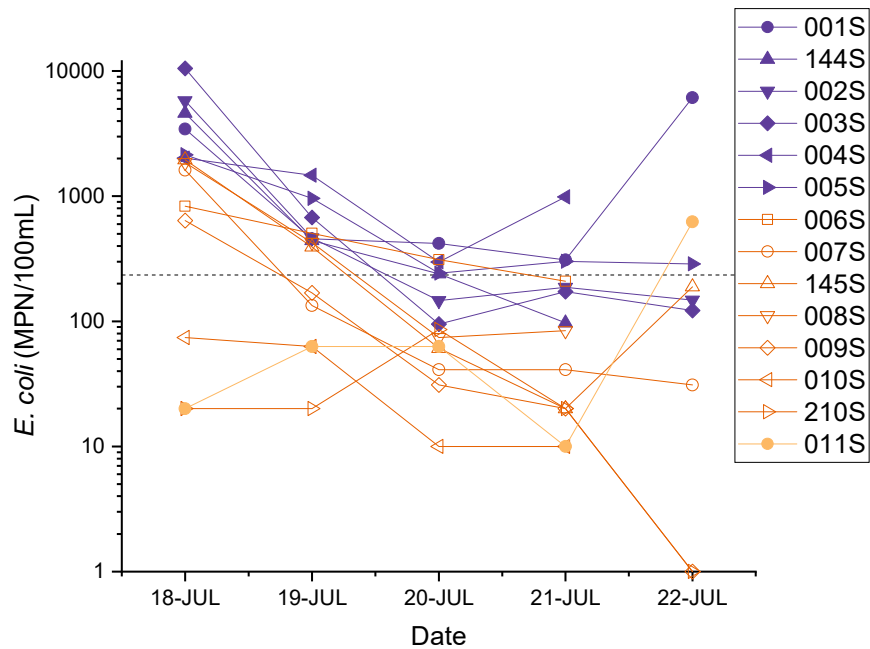


Figure 5-10. Charles River *E. coli* counts, July 18-22, 2018.

Time series of *E. coli* counts after the July 17 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL.

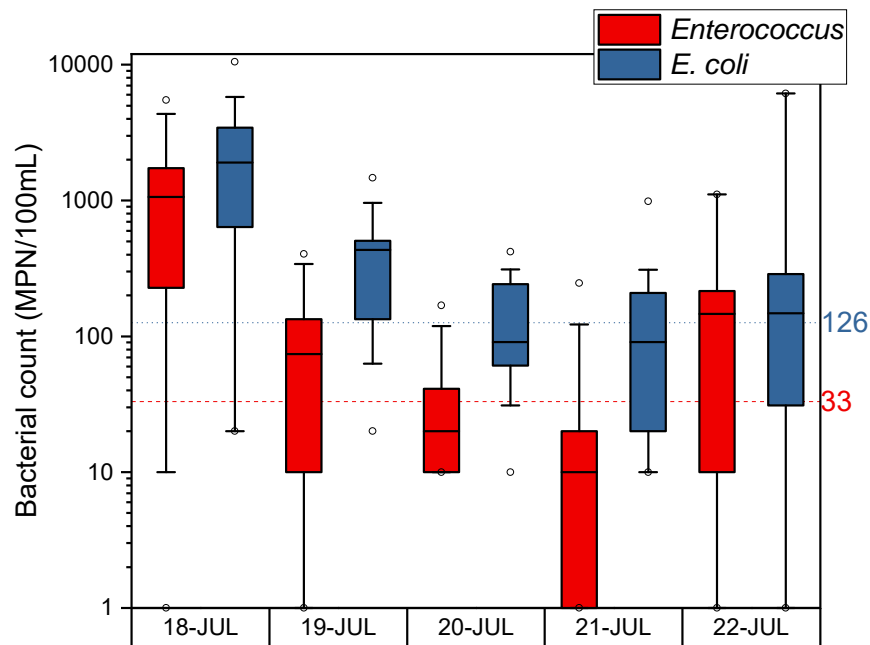


Figure 5-11. Charles River bacteria samples by date, July 18-24, 2018.

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected after the July 17 storm. The dotted line shows the MADEP *Enterococcus* geometric mean standard and the dashed line the *E. coli* geometric mean standard.

5.2.1.2 September 18, 2018

Table 5-3 describes the storm characteristics from the rain on September 18. Figures 5-12 and 5-13 show *Enterococcus* and *E. coli* counts during this sampling period. Three samples each of the two indicator species were taken on September 17, before the rain began. Five of those samples met the appropriate single sample limit, with the sixth *Enterococcus* sample just above. Samples collected on the 18th were collected during the storm, but before Cottage Farm discharged. The facility discharged treated effluent from 12:37 to 14:30 on the 18th (see Table 5-4). The geometric mean for the NPDES sampling of the Cottage Farm effluent was 3 MPN/100mL for *Enterococcus* and 8 MPN/100mL for *E. coli*, both well below any receiving water samples collected the next day. During the storm, impacts were seen most strongly in the Upper Basin. Unusually, high counts were also recorded of both indicator species at site 011, the most downstream location in the Lower Basin. At site 006, downstream of Cottage Farm, counts were high on the 19th but declined quickly for both *Enterococcus* and *E. coli*.

Enterococcus counts at about half of the locations, with no clear spatial pattern, were below the standard by September 21. Both indicators met single sample standards at nearly all locations by the morning of September 22. Figure 5-14 shows that river-wide, *Enterococcus* met the geometric mean standard by the 22nd, albeit with a wide range of counts, while the *E. coli* geometric mean standard was not met by the last day of sampling, September 23.

Table 5-3. Rainfall Characteristics for September 18, 2018 Storm.

Gauge	Storm Start (Sept 18, EST)	Storm End (Sept 18, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Ward St (MWRA)	01:15	14:00	12.75	1.18	0.29	0.63
Allston (BWSC)	01:15	14:00	12.75	1.63	0.71	1.12
Charlestown (BWSC)	01:15	14:00	12.75	1.41	0.55	0.93
Fresh Pond (USGS)	00:00	14:00	14	1.75	0.51	1.11

Table 5-4. CSO Discharges in the September 18, 2018 Storm from MWRA meter records.

Outfall	Discharge Date	Duration (hrs:min)	Volume (MG)	Notes
CAM005	9/18/18		0.28	
CAM007	9/18/18		0.14	
MWR201 (Cottage Farm)	9/18/18	1:53	4.28	Treated

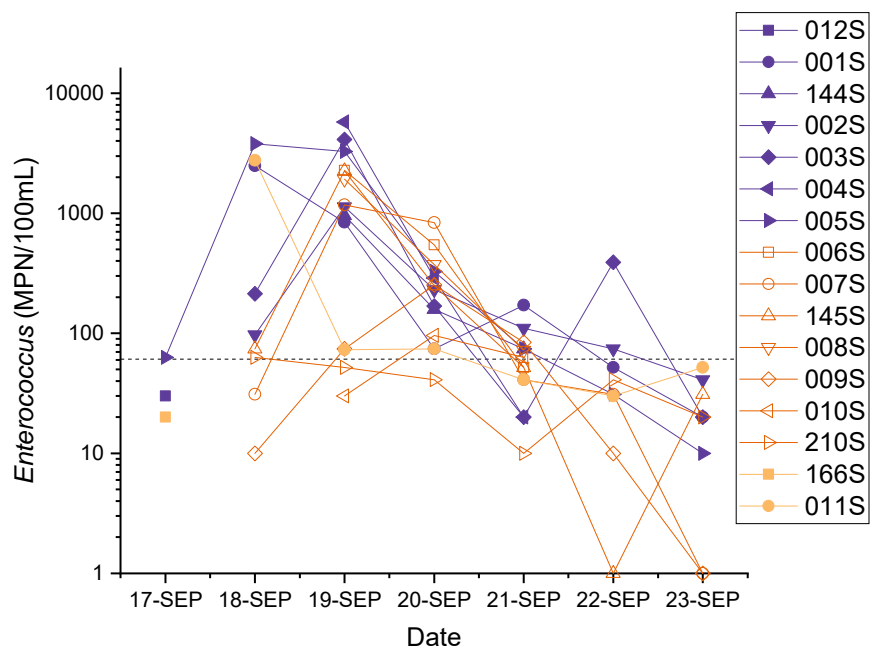


Figure 5-12. Charles River *Enterococcus* counts, September 17-23, 2018.

Time series of *Enterococcus* counts before and after the September 18 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL.

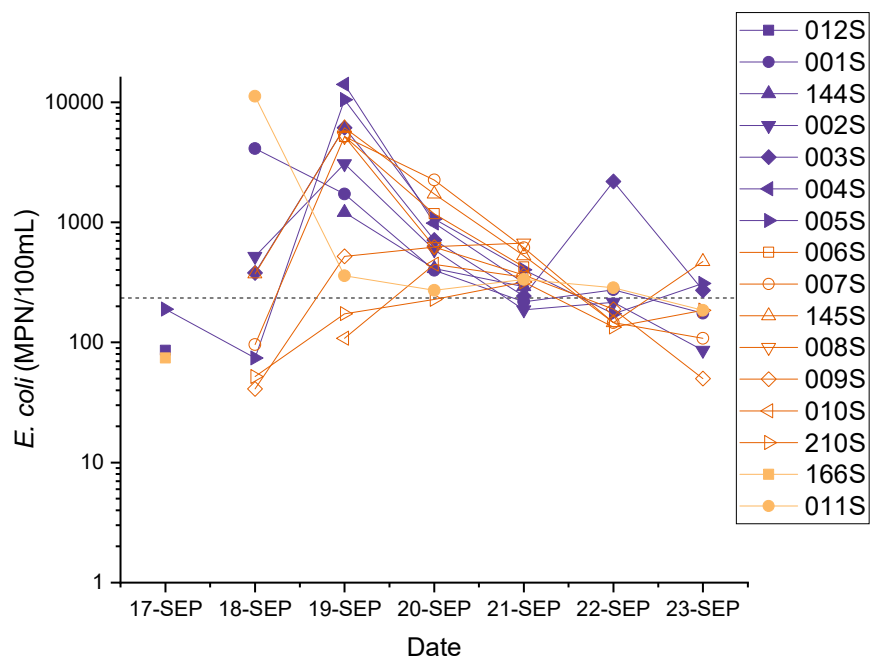


Figure 5-13. Charles River *E. coli* counts, September 17-23, 2018.

Time series of *E. coli* counts before and after the September 18 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL.

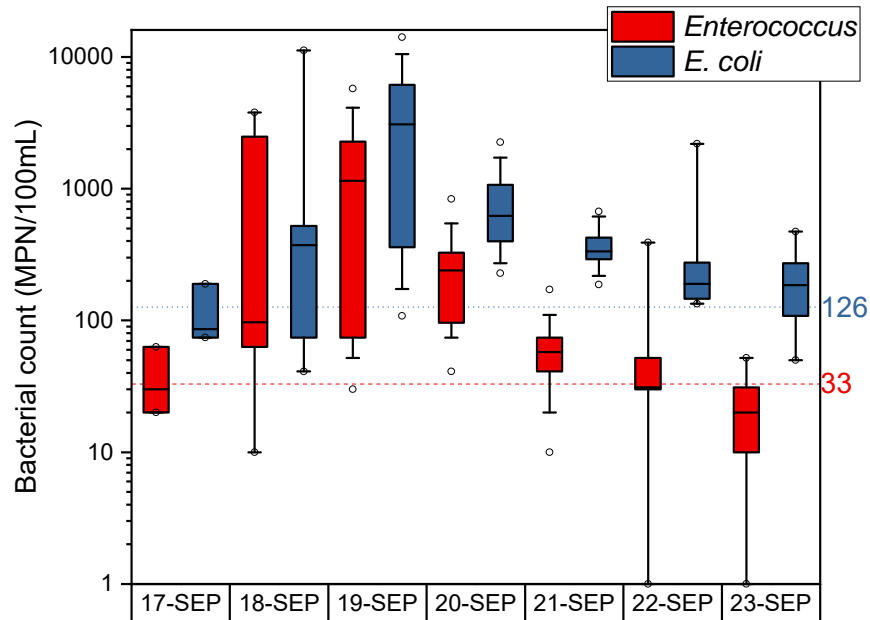


Figure 5-14. Charles River bacteria samples by date, September 17-23, 2018.

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected before and after the September 18 storm. The dotted line shows the MADEP *Enterococcus* geometric mean standard and the dashed line the *E. coli* geometric mean standard.

5.2.1.3 October 27, 2018

A relatively long duration, low intensity storm began on October 27 and stretched into the next day (Table 5-5). No CSO discharges occurred. Samples on the 26th were collected before the storm began, and those on the 27th during the storm. A number of samples collected on the 26th did not meet either indicator bacteria standard; this was potentially due to a rainfall event approximately 2.5 days earlier. That storm did not cause any CSO discharges either. However, there was a storm on October 29 that was relatively short with a higher intensity than the October 27 storm (Table 5-6). This storm probably did delay recovery to the baseline, as described below.

Impacts from the October 27 storm are not apparent in data from sampling that day, as sampling began only a few hours after the rain started. A few sites met the single sample standard for both indicator species (see Figures 5-15 and 5-16). However, on October 28, the only site that met standards was 210, and only for *Enterococcus*.

This trend continued, probably as a result of the added rain on the 29th, as no other samples met the single sample standard until an *E. coli* sample on October 31 at site 001 in the Upper Basin. Impacts from the very small CSO discharge (Table 5-7; so small that the meter was unable to reliably quantify the volume; the upper bound for the volume is 0.005 MG) at CAM005 did not seem to affect bacteria counts at site 003, downstream of that outfall.

Figure 5-17 shows that after October 27, the geometric mean of all samples failed to meet either the *Enterococcus* or *E. coli* geometric mean standards for any of the sampling dates.

Table 5-5. Rainfall Characteristics for October 27, 2018 Storm.

Gauge	Storm Start (Oct 27, EST)	Storm End (Oct 27, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Ward St (MWRA)	05:45	07:45	26	1.65	0.09	0.27
Allston (BWSC)	05:30	06:30	25	1.67	0.09	0.27
Charlestown (BWSC)	06:15	07:00	24.75	1.41	0.09	0.24
Fresh Pond (USGS)	07:15	09:00	25.75	1.15	0.09	0.17

Table 5-6. Rainfall Characteristics for October 29, 2018 Storm.

Gauge	Storm Start (Oct 29, EST)	Storm End (Oct 29, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Ward St (MWRA)	04:00	12:30	8.5	0.77	0.13	0.41
Allston (BWSC)	03:45	12:30	8.75	0.78	0.22	0.34
Charlestown (BWSC)	04:00	13:15	9.25	0.57	0.11	0.38
Fresh Pond (USGS)	0:515	14:15	9	0.81	0.25	0.55

Table 5-7. CSO Discharges in the October 27 and 29, 2018 Storms from MWRA meter records.

Outfall	Discharge Date	Duration (hrs:min)	Volume (MG)	Notes
CAM005	10/29/18		<0.005	Meter confirms discharge but unable to exactly quantify an amount that small

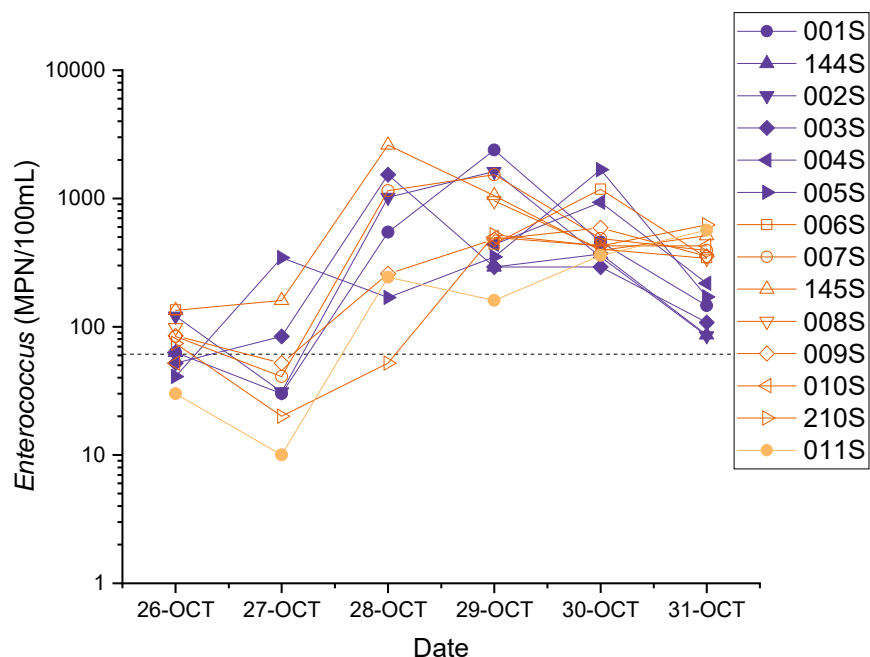


Figure 5-15. Charles River *Enterococcus* counts, October 26-31, 2018.

Time series of *Enterococcus* counts after the October 27 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL.

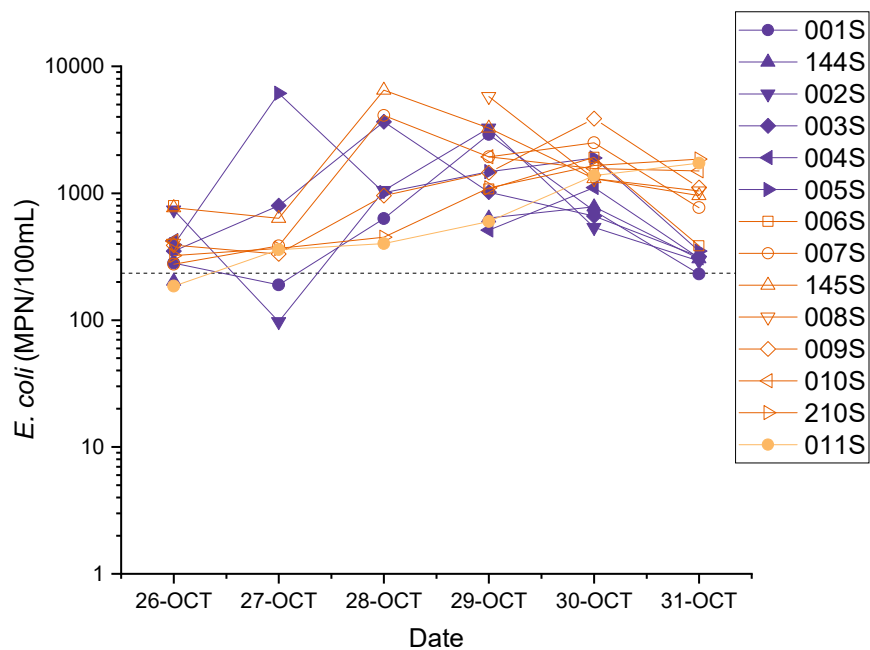


Figure 5-16. Charles River *E. coli* counts, October 26-31, 2018.

Time series of *E. coli* counts after the October 27 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL.

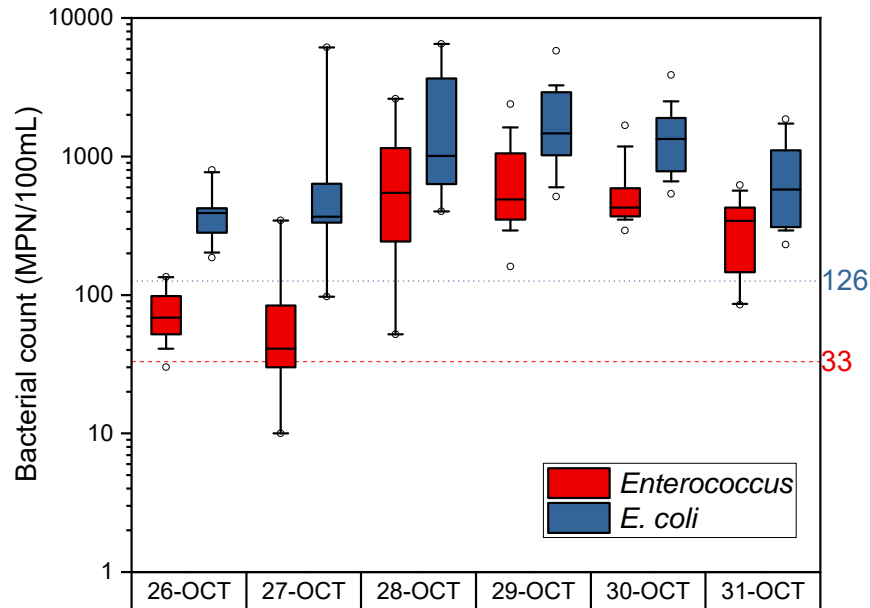


Figure 5-17. Charles River bacteria samples by date, October 26-31, 2018.

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected after the October 27 storm. The dotted line shows the MADEP *Enterococcus* geometric mean standard and the dashed line the *E. coli* geometric mean standard.

5.2.2 Mystic River & Alewife Brook

This section contains a more detailed look at samples following two storm events in the Mystic River and Alewife Brook in 2018. These two storm events were selected because they had similar total rainfall depths, although the July storm was more intense. The July 6 storm resulted in CSO discharges at two outfalls in Alewife Brook, and the Somerville-Marginal treatment facility. The June 4 storm did not result in any CSO discharges.

5.2.2.1 July 6, 2018

A short but relatively intense storm passed through the area on July 6, after the morning sampling round (Table 5-8). Therefore, the July 6 results are pre-storm. The rainfall caused discharges from CAM401A and SOM001A in the Alewife Brook, as well as a discharge of treated CSO effluent from the Somerville Marginal facility in the non-Variance, marine part of the Mystic River (Table 5-10).

It is notable that a number of the pre-storm samples on July 6 exceeded bacteria standards in the Alewife Brook (all of them for *Enterococcus*), but generally met standards in the Upper Mystic River and the Lower Mystic Basin (Figures 5-18 and 5-19). On July 7, the counts spiked for both indicators. All locations in Alewife Brook exceeded standards for both indicators. There was not a significant difference between any of the locations; site 174 upstream of all CSOs was either the highest (*Enterococcus*) or close to it (*E. coli*). Site 057 at the confluence of the Alewife Brook and the Mystic River had very high counts of *Enterococcus* but much lower counts of *E. coli* (although the latter still did not meet the single sample standard).

Counts for the rest of the monitoring period remained flat or decreased slightly in the Alewife Brook. There was a slight increase (most noticeable for *E. coli*) on the 11th possibly due to a small rainfall event on July 10 (Table 5-9).

Most of the non-Alewife sites met or only slightly exceeded standards after the initial storm on July 6. The only major exceptions were site 057, which recovered quickly and met standards on July 8, and site 056 near Medford Square, which was somewhat slow to recover but met all standards by July 10.

Table 5-8. Rainfall Characteristics for July 6, 2018 Storm.

Gauge	Storm Start (Jul 6, EST)	Storm End (Jul 6, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Charlestown (BWSC)	10:15	11:45	1.5	0.43	0.17	0.38
Fresh Pond (USGS)	10:30	12:30	2	0.56	0.29	0.52

Table 5-9. Rainfall Characteristics for June 10-11, 2018 Storm.

Gauge	Storm Start (Jul 10, EST)	Storm End (Jul 11, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Charlestown (BWSC)	23:45	00:00	0.25	0.03	0.03	0.03
Fresh Pond (USGS)	23:45	00:15	0.5	0.02	0.02	0.02

Table 5-10. CSO Discharges in the July 6, 2018 Storm from MWRA meter records.

Outfall	Discharge Date	Duration (hrs:min)	Volume (MG)	Notes
CAM401A	7/6/18	0:30		Level-only meter, no volume estimate
SOM001A	7/6/18		0.14	
MWR205 (Somerville Marginal)	7/6/18	1:04	1.00	Treated

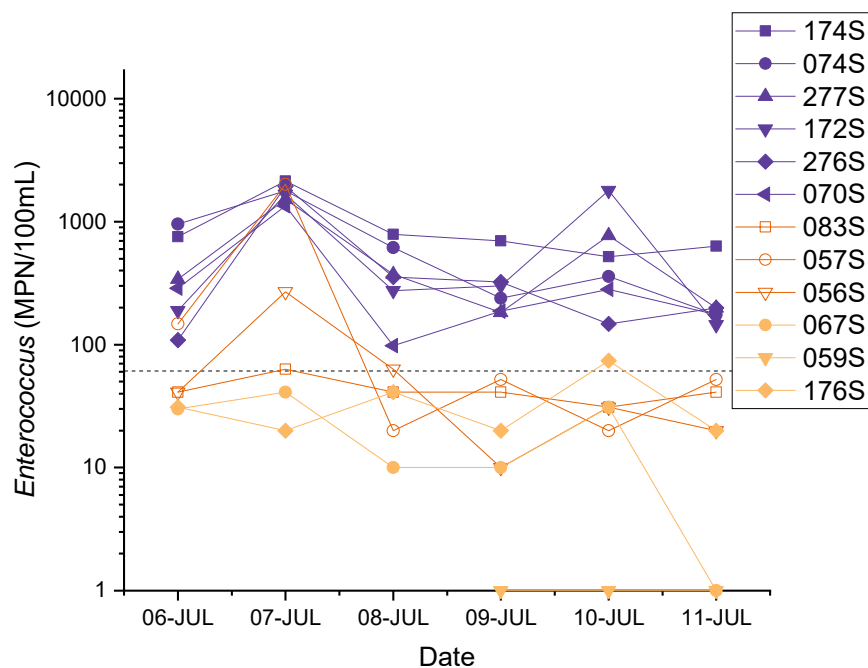


Figure 5-18. Alewife Brook and Mystic River *Enterococcus* counts, July 6-11, 2018.
Time series of *Enterococcus* counts after the July 6 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL.

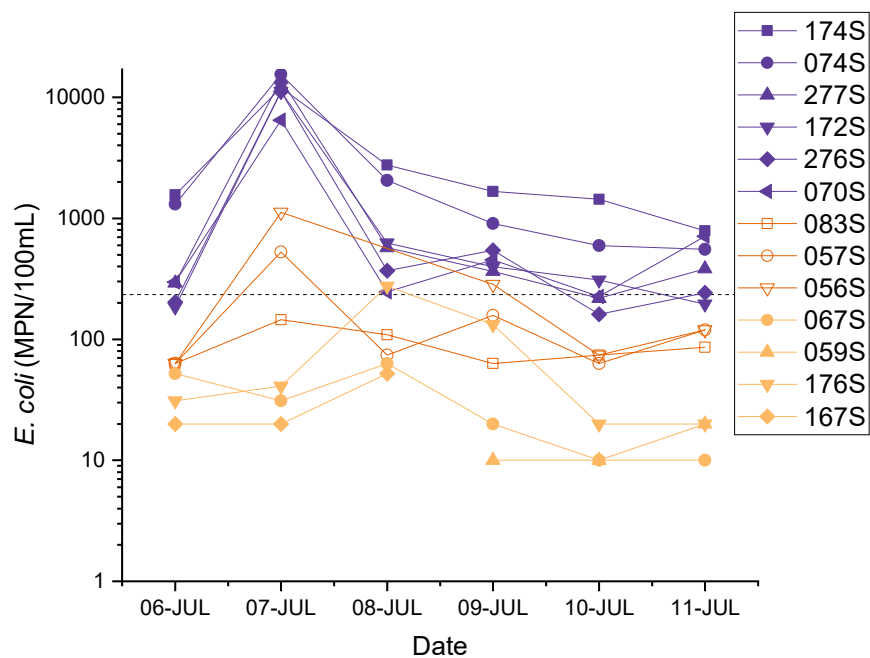


Figure 5-19. Alewife Brook and Mystic River *E. coli* counts, July 6-11, 2018.
Time series of *E. coli* counts after the July 6 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL.

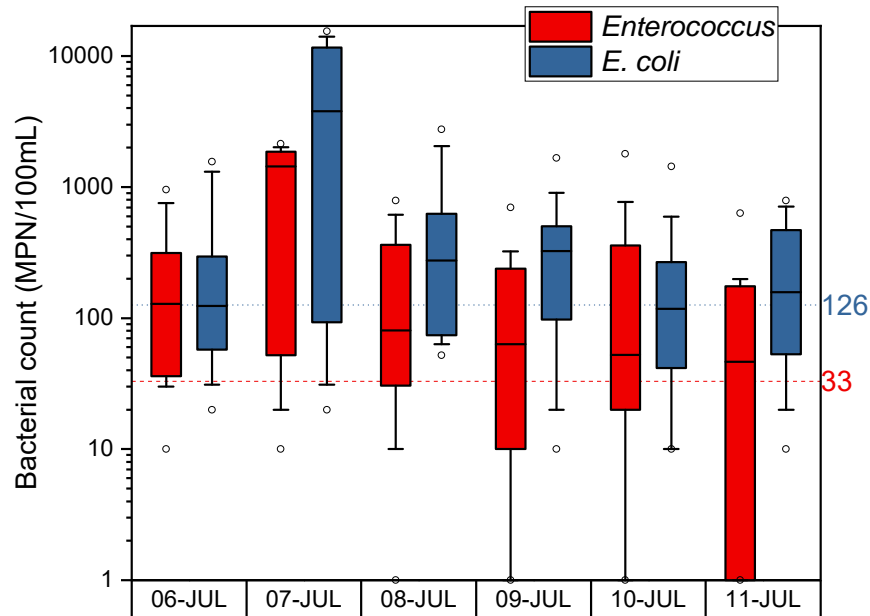


Figure 5-20. Alewife Brook and Mystic River bacteria samples by date, July 6-11, 2018. Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected after the July 6 storm. The dotted line shows the MADEP *Enterococcus* geometric mean standard and the dashed line the *E. coli* geometric mean standard.

5.2.2.2 June 4, 2018

On June 4, sampling occurred during a moderately sized rainstorm (Table 5-11); this was reflected in about half the samples collected being over their respective standards. No CSOs discharged in the freshwater portion of the Mystic, although the Somerville Marginal CSO Facility discharged at its marine outfall (MWR205; Table 5-13).

Counts were higher on June 5, probably reflecting the influence of the previous days' rain; the Alewife Brook locations had among the highest counts, although site 069 (for *Enterococcus*) and site 176 (for both indicator species) were also very high (Figures 5-21 and 5-22). The untreated CSO BOS017 is near site 069; unfortunately, meter data is not available for that outfall for June. Site 176 is in the Malden River, which has a persistent issue with high bacteria counts. Site 052 at the MWR205 outfall was also high for *Enterococcus*. The effluent from the facility is disinfected, however, large amounts of stormwater enter the discharge conduit after the facility, so it is possible that this stormwater is influencing the counts. Note that sites 052 and 069 are in the marine, non-Variance portion of the Mystic River.

After sampling on June 5, there was a small to moderate rainstorm (Table 5-12). That rainfall increased the bacteria counts on June 6. Sites 069 and 176 remained somewhat high, but not as high as the previous day. For the rest of the sampling period, counts tended to decline, although the Alewife Brook locations always remained among the highest, with none of the sites meeting the *Enterococcus* standard during the sampling period.

On June 9, site 083 (downstream of the Mystic Lakes) and 056 (Medford Square) had increases in both indicator species. There was no rain recorded at either the USGS Fresh Pond or BWSC Charlestown rain gauges that might explain this increase.

Basin-wide, Figure 5-23 shows high variability on June 4, probably because samples were taken during the storm. Counts remain high for the next two days, and then decrease, but still remain moderately high. Only the *E. coli* geomean meets the standards on June 10, the last day of the sampling period.

Table 5-11. Rainfall Characteristics for June 4, 2018 Storm.

Gauge	Storm Start (Jun 4, EST)	Storm End (Jun 4, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Charlestown (BWSC)	04:30	13:45	9.25	0.64	0.08	0.19
Fresh Pond (USGS)	05:30	13:45	8.25	0.49	0.05	0.18

Table 5-12. Rainfall Characteristics for June 5, 2018 Storm.

Gauge	Storm Start (Jun 5, EST)	Storm End (Jun 5, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15 min)	Peak Intensity (in/hr)
Charlestown (BWSC)	12:15	18:15	6	0.39	0.13	0.21
Fresh Pond (USGS)	13:15	15:45	2.5	0.45	0.24	0.4

Table 5-13. CSO Discharges in the June 4, 2018 Storm from MWRA meter records.

Outfall	Discharge Date	Duration (hrs:min)	Volume (MG)	Notes
MWR205 (Somerville Marginal)	6/4/18	0:56	0.21	Treated

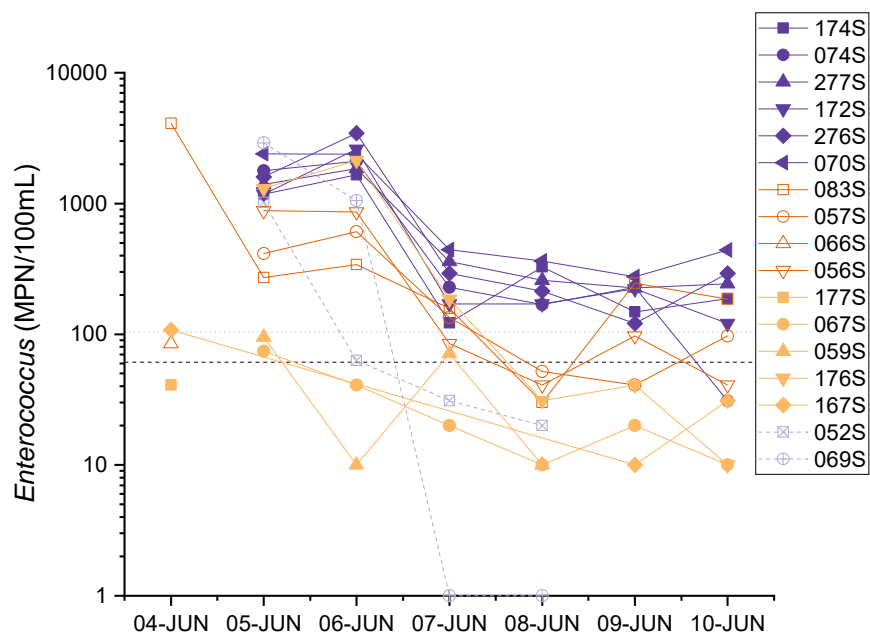


Figure 5-21. Alewife Brook and Mystic River *Enterococcus* counts, June 4-10, 2018.
Time series of *Enterococcus* counts after the June 4 storm. Dashed lines are the MADEP single sample standards of 61 MPN/100mL for freshwater stations and 104 MPN/100mL for marine (052S, 069S).

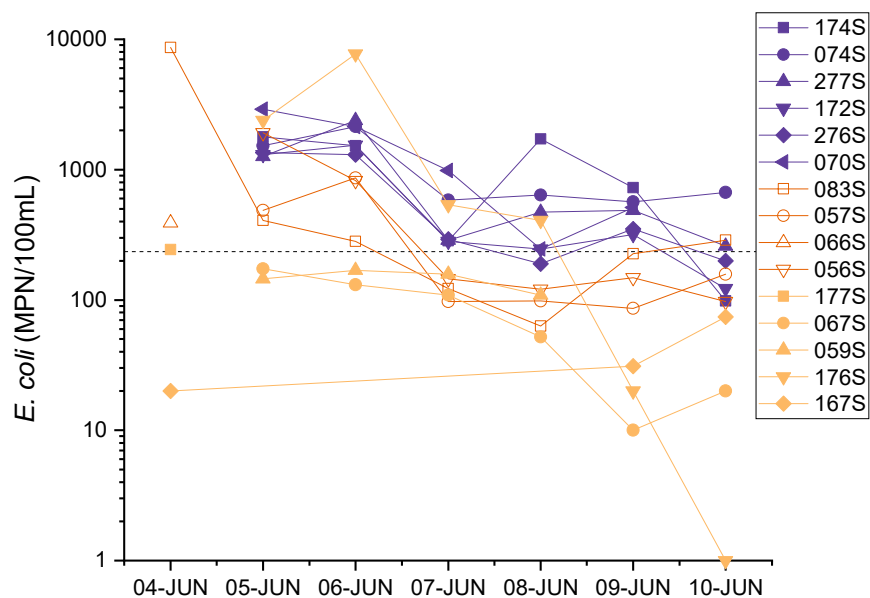


Figure 5-22. Alewife Brook and Mystic River *E. coli* counts, June 4-10, 2018.
Time series of *E. coli* counts after the June 4 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL.

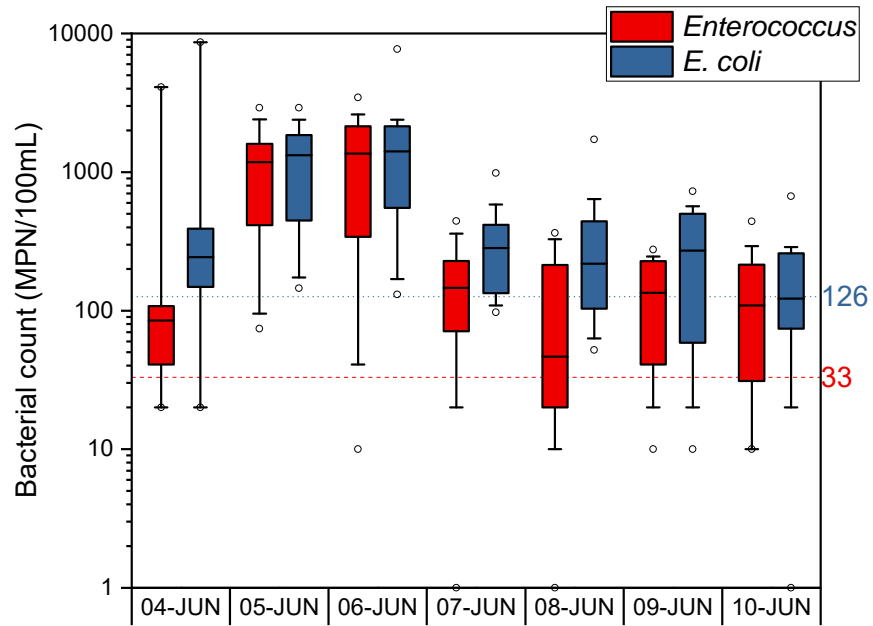


Figure 5-23. Alewife Brook and Mystic River bacteria samples by date, June 4-10, 2018. Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected after the June 4 storm. The dotted line shows the MADEP *Enterococcus* geometric mean standard and the dashed line the *E. coli* geometric mean standard.

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APPENDICES

Appendix I

Use of local rain gauge data for rainfall characterization

Appendix II

2018 raw data, laboratory analyses

Appendix III

2018 raw data, physical profile results

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Appendix I: Use of Local Rain Gauge Data for Rainfall Categorization

Numerous earlier figures in this report use rainfall categories of Dry/Damp/Wet or Dry/Damp/Light Rain/Heavy Rain (e.g., Figure 3-5, etc.). In past reports, these categories have been based on daily rainfall data collected at the NOAA rain gauge at Logan Airport, which depending on the spatial characteristics of a specific storm, may or may not give an accurate picture of the total rainfall amount in a certain area. As CSO activations are heavily influenced by rainfall in the area “served” by the CSO, MADEP requested that more localized rainfall data be used by MWRA.

For this report, all rainfall conditions (with several exceptions, see below) are calculated from the rain gauge most local to the sampling station. The pairings of local rain gauges with sampling locations is below in Table 6-1. These local rain gauges are maintained by MWRA, BWSC, and USGS (Figure 6-1). These are the same gauges used by the Authority’s Infoworks sewer system hydraulic model. These gauges report not only rainfall depth, but also rainfall intensity, generally in 15 minute intervals. Due to the greater temporal resolution of the local rain gauges over the Logan gauge, antecedent rainfall can be calculated precisely 24, 48, or 72 hours (or, if needed, any arbitrary number) prior to the exact sample collection time.

The only exceptions to the use of local rain gauges are Figures 3-7, 3-8, 4-9, and 4-10 which present data dating back to 1989. As the Logan rain gauge is the only gauge available with a complete data set for the entirety of the period, for consistency the rainfall conditions on those plots are calculated using the Logan rain gauge data for the entire 1989-2017 period.

Table I-1. Rain gauges nearest to MWRA sampling locations.

Charles River		Mystic River/Alewife Brook	
Sampling Location	Nearest Rain Gauge	Sampling Location	Nearest Rain Gauge
012	USGS Fresh Pond	174	USGS Fresh Pond
001	USGS Fresh Pond	074	USGS Fresh Pond
144	USGS Fresh Pond	277	USGS Fresh Pond
002	USGS Fresh Pond	172	USGS Fresh Pond
003	USGS Fresh Pond	276	USGS Fresh Pond
004	BWSC Allston	070	USGS Fresh Pond
005	BWSC Allston	083	USGS Fresh Pond
006	BWSC Allston	057	USGS Fresh Pond
007	MWRA Ward St.	066	USGS Fresh Pond
145	MWRA Ward St.	056	USGS Fresh Pond
008	MWRA Ward St.	177	USGS Fresh Pond
009	BWSC Charlestown	067	BWSC Charlestown
010	BWSC Charlestown	059	BWSC Charlestown
210	BWSC Charlestown	176	BWSC Charlestown
166	BWSC Charlestown	167	BWSC Charlestown
011	BWSC Charlestown	052	BWSC Charlestown
		069	BWSC Charlestown
		137	BWSC Charlestown

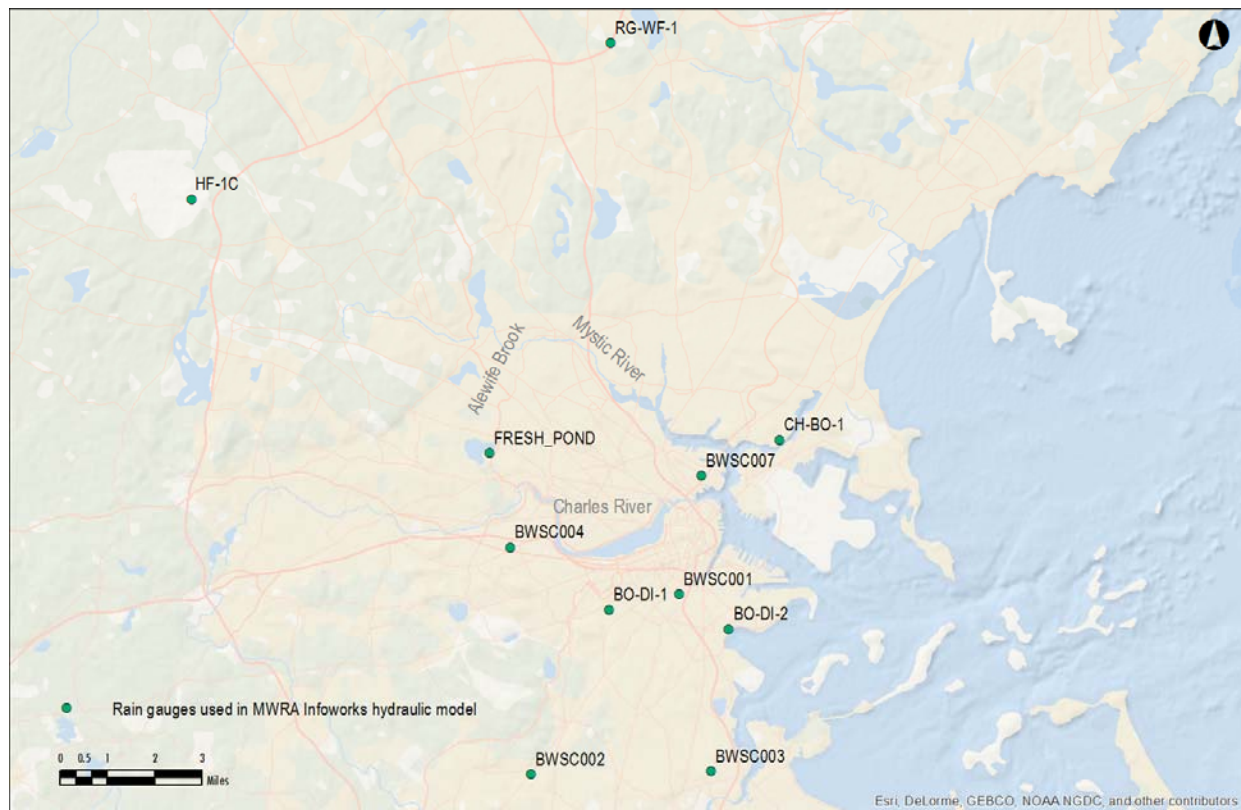


Figure I-1. Map of rain gauges utilized by MWRA.

Rain gauges used in the MWRA's Infoworks regional sewer system hydraulic model. Of the eleven gauges, BO-DI-1 (MWRA Ward St.), BWSC004 (BWSC Allston), BWSC007 (BWSC Charlestown), and FRESH_POND (USGS Fresh Pond) are the most relevant local gauges for the Charles River and Alewife Brook/Upper Mystic River Variance waters.

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APPENDIX II

2018 raw data for laboratory results.

Non-detected results have been converted to detection limit for all results except for bacteria, which are converted to 0.

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2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
012	1/29/18 11:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	10	31	
012	2/13/18 10:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.69	52	160	
012	2/27/18 11:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.51	0	52	
012	3/16/18 10:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.04	20	20	
012	3/26/18 10:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.07	0.08	0	20	
012	4/12/18 10:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.06	0.06	10	171	
012	4/23/18 10:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	20	
012	5/8/18 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.19	91.5	109	
012	5/22/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.11	132.5	180.5	
012	6/4/18 10:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.62	0.62	0.63	1620	10500	
012	6/19/18 9:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.14	0.14	354	738	
012	7/5/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	341	435	
012	7/16/18 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.32	52	231	
012	8/1/18 10:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	231	
012	8/20/18 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.14	0	74	
012	9/7/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	63	457	
012	9/17/18 9:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	86	
012	10/2/18 9:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.29	0.35	0.35	31	173	
012	10/18/18 10:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.03	10	52	
012	11/2/18 10:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.37	0.37	84	97	
012	11/15/18 11:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	0.46	1.56	85	155	
012	11/27/18 10:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	1.33	2.11	278	613	
012	12/10/18 10:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	57.5	
012	12/26/18 11:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	110	
001	3/2/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31	613	663	
001	3/3/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3	249	327	
001	3/4/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3	249	189	
001	3/5/18 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	132	309	
001	3/6/18 10:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	62	121	
001	3/7/18 10:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	41	185	
001	4/4/18 10:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	31	158	
001	4/5/18 9:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	31	97	
001	4/6/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	31	74	
001	4/9/18 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	20	141	
001	4/10/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	63	
001	4/11/18 7:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
001	4/13/18 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	10	52	
001	4/17/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	373	749	
001	4/18/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	318	272	
001	4/19/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	41	650	
001	4/20/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	52	110	
001	4/21/18 7:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23	31	63	
001	5/23/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	41	177	
001	5/24/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	108	201	
001	5/25/18 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	31	201	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
001	5/29/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	108	211	
001	5/30/18 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	63	250	
001	5/31/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	382	
001	6/25/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59		14100	
001	6/26/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	359	1960	
001	6/27/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	161	185	
001	6/28/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	8160	6870	
001	6/29/18 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	301	583	
001	6/30/18 7:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16	173	246	
001	7/1/18 7:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	369	331	
001	7/2/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	52	216	
001	7/3/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	52	213	
001	7/18/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	1540	3450	
001	7/19/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	341	457	
001	7/20/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	169	419	
001	7/21/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	122	309	
001	7/22/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17	1110	6130	
001	8/6/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	0	246	
001	8/7/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	228	
001	8/8/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	10	189	
001	8/9/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04	839	1660	
001	8/27/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	213	
001	8/28/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	148	
001	8/29/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	97	
001	8/30/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	161	
001	8/31/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	97	
001	9/18/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	2490	4110	
001	9/19/18 10:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	839	1720	
001	9/20/18 9:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	74	399	
001	9/21/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	171	218	
001	9/22/18 6:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03	52	275	
001	9/23/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	20	175	
001	10/9/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	63	97	
001	10/10/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	203	
001	10/11/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	20	134	
001	10/12/18 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	528	657	
001	10/13/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82	85	309	
001	10/14/18 8:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22	20	345	
001	10/15/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	31	216	
001	10/16/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	121	158	
001	10/26/18 10:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	63	282	
001	10/27/18 7:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17	30	189	
001	10/28/18 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2	545	631	
001	10/29/18 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	2380	2910	
001	10/30/18 10:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	457	727	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
001	10/31/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	146	231	
001	11/10/18 7:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55	443	359	
001	11/11/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55	178	230	
001	11/12/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45	158	171	
001	11/13/18 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1	727	1540	
001	11/14/18 9:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1	173	480	
144	4/9/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	20	
144	4/10/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	63	
144	4/11/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	20	
144	5/23/18 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	41	171	
144	5/24/18 9:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	98	173	
144	5/25/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	74	175	
144	5/29/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	63	187	
144	5/30/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	10	305	
144	5/31/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	161	
144	6/25/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	12000		
144	6/26/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	336	3450	
144	6/27/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	31	262	
144	6/29/18 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	393	1190	
144	7/2/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	233	
144	7/3/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	0	121	
144	7/18/18 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	2360	4610	
144	7/19/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	134	441	
144	7/20/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	41	240	
144	7/21/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	97	
144	8/6/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	31	161	
144	8/7/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	187	
144	8/8/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	0	187	
144	8/27/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	169	
144	8/28/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	72	
144	8/29/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	211	
144	8/30/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	120	
144	8/31/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	97	
144	9/19/18 9:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	959	1210	
144	9/20/18 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	158	413	
144	9/21/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	74	292	
144	10/9/18 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	20	145	
144	10/10/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	197	
144	10/26/18 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	63	203	
144	10/29/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	292	638	
144	10/30/18 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	369	780	
144	10/31/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	86	305	
002	3/2/18 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31	185	278	
002	3/3/18 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3	185	359	
002	3/4/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3	231	278	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
002	3/5/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	131	223	
002	3/6/18 10:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	74	231	
002	3/7/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	51	145	
002	4/4/18 10:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	63	61	
002	4/5/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	98	156	
002	4/6/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	10	108	
002	4/9/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	63	
002	4/10/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	85	
002	4/11/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	74	
002	4/13/18 7:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	52	31	
002	4/17/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	313	512	
002	4/18/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	5790	275	
002	4/19/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	63	203	
002	4/20/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	63	295	
002	4/21/18 7:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23	31	52	
002	5/23/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	41	121	
002	5/24/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	63	256	
002	5/25/18 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	31	63	
002	5/29/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	20	231	
002	5/30/18 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	10	218	
002	5/31/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	171	
002	6/25/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	4610	10500	
002	6/26/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	441	7270	
002	6/27/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	52	573	
002	6/28/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	4880	17300	
002	6/29/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	1300	2850	
002	6/30/18 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16	85	272	
002	7/1/18 7:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	63	216	
002	7/2/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	175	
002	7/3/18 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	20	135	
002	7/18/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	5480	5790	
002	7/19/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	146	465	
002	7/20/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	20	146	
002	7/21/18 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	52	187	
002	7/22/18 7:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17	20	148	
002	8/6/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	30	246	
002	8/7/18 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	86	
002	8/8/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	0	201	
002	8/9/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04	537	1990	
002	8/27/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	203	
002	8/28/18 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	122	
002	8/29/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	120	
002	8/30/18 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	63	
002	8/31/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	146	
002	9/18/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	97	521	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
002	9/19/18 9:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	1130	3080	
002	9/20/18 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	231	591	
002	9/21/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	110	187	
002	9/22/18 6:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03	74	216	
002	9/23/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	41	86	
002	10/9/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	10	121	
002	10/10/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	179	
002	10/11/18 9:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	0	146	
002	10/12/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	364	1110	
002	10/13/18 8:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82	134	393	
002	10/14/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22	20	228	
002	10/15/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	31	120	
002	10/16/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	143	275	
002	10/26/18 9:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	121	738	
002	10/27/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17	31	97	
002	10/28/18 7:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2	1020	1050	
002	10/29/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	1620	3260	
002	10/30/18 9:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	350	537	
002	10/31/18 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	85	292	
002	11/10/18 6:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55	717	776	
002	11/11/18 7:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55	240	199	
002	11/12/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45	512	288	
002	11/13/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1	556	776	
002	11/14/18 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1	134	393	
003	3/2/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31	74	275	
003	3/3/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3	259	432	
003	3/4/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3	63	292	
003	3/5/18 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	74	259	
003	3/6/18 10:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	20	175	
003	3/7/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	52	135	
003	4/4/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	121	933	
003	4/5/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	97	146	
003	4/6/18 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	10	309	
003	4/9/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	0	74	
003	4/10/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	160	
003	4/11/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	98	
003	4/13/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	0	161	
003	4/17/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	134	754	
003	4/18/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	52	624	
003	4/19/18 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	63	201	
003	4/20/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	63	171	
003	4/21/18 6:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23	63	143	
003	5/23/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	20	201	
003	5/24/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	31	121	
003	5/25/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	10	161	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
003	5/29/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	0	158	
003	5/30/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	41	108	
003	5/31/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	121	
003	6/25/18 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	1200	1660	
003	6/26/18 8:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	364	3870	
003	6/27/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	63	1110	
003	6/28/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	13000	7700	
003	6/29/18 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	2910	4610	
003	6/30/18 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16	292	439	
003	7/1/18 6:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	282	
003	7/2/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	120	
003	7/3/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	0	62	
003	7/18/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	4350	10500	
003	7/19/18 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	404	677	
003	7/20/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	10	95	
003	7/21/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	173	
003	7/22/18 7:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17	216	122	
003	8/6/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	41	633	
003	8/7/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	175	
003	8/8/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	31	74	
003	8/9/18 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04	148	441	
003	8/27/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	134	
003	8/28/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	216	
003	8/29/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	185	
003	8/30/18 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	161	
003	8/31/18 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	546	
003	9/18/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	213	379	
003	9/19/18 9:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	4110	6130	
003	9/20/18 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	169	712	
003	9/21/18 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	243	
003	9/22/18 6:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03	389	2190	
003	9/23/18 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	20	272	
003	10/9/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	0	173	
003	10/10/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	160	
003	10/11/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	31	368	
003	10/12/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	2760	3870	
003	10/13/18 7:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82	216	1270	
003	10/14/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22	121	882	
003	10/15/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	20	1720	
003	10/16/18 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	41	583	
003	10/26/18 9:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	52	350	
003	10/27/18 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17	84	798	
003	10/28/18 7:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2	1530	3650	
003	10/29/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	292	1020	
003	10/30/18 9:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	292	663	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
003	10/31/18 9:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	108	317	
003	11/10/18 6:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55	528	1110	
003	11/11/18 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55	97	379	
003	11/12/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45	51	199	
003	11/13/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1	96	2050	
003	11/14/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1	52	426	
004	4/9/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	134	
004	4/10/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	109	
004	4/11/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	98	
004	5/23/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	20	52	
004	5/24/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	0	10	
004	5/25/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	20	10	
004	5/29/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	0	41	
004	5/30/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	41	74	
004	5/31/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	30	
004	6/25/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	345	496	
004	6/26/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	132	341	
004	6/27/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	20	213	
004	6/29/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	565	1080	
004	7/2/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	41	
004	7/3/18 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	0	20	
004	7/18/18 8:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	1730	2010	
004	7/19/18 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	74	1470	
004	7/20/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	41	299	
004	7/21/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	985	
004	8/6/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	30	472	
004	8/7/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	160	
004	8/8/18 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	10	313	
004	8/27/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	122	
004	8/28/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	1540	
004	8/29/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	565	
004	8/30/18 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	402	
004	8/31/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	419	
004	9/19/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	5750	14100	
004	9/20/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	288	985	
004	9/21/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	313	
004	10/9/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	0	98	
004	10/10/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	74	173	
004	10/26/18 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	63	422	
004	10/29/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	439	512	
004	10/30/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	933	1110	
004	10/31/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	218	309	
005	1/29/18 10:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	10	41	
005	2/13/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.69	31	74	
005	2/27/18 10:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.51	0	85	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
005	3/2/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31	63	173	
005	3/3/18 7:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3	712	689	
005	3/4/18 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3	199	471	
005	3/5/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	213	1140	
005	3/6/18 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	171	528	
005	3/7/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	41	323	
005	3/16/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.04	31	228	
005	3/26/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.07	0.08	0	74	
005	4/4/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	110	298	
005	4/5/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	41	173	
005	4/6/18 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	0	109	
005	4/9/18 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	146	
005	4/10/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	74	
005	4/11/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	272	
005	4/12/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.06	0.06	51	86	
005	4/13/18 6:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	41	31	
005	4/17/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	677	776	
005	4/18/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	285	262	
005	4/19/18 7:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	145	250	
005	4/20/18 7:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	41	173	
005	4/21/18 6:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23	10	122	
005	4/23/18 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	63	
005	5/8/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.19	10	86	
005	5/22/18 9:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.11	86	86	
005	5/23/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	0	74	
005	5/24/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	0	20	
005	5/25/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	0	41	
005	5/29/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	10	31	
005	5/30/18 7:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	20	63	
005	5/31/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	0	
005	6/4/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.62	0.62	0.63	2180	259	
005	6/19/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.14	0.14	272	631	
005	6/25/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	457	700	
005	6/26/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	85	256	
005	6/27/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	10	175	
005	6/28/18 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	5170	1500	
005	6/29/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	878	1840	
005	6/30/18 6:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16	1520	959	
005	7/1/18 6:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	74	173	
005	7/2/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	52	
005	7/3/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	10	51	
005	7/5/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	413	381	
005	7/16/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.32	63	134	
005	7/18/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	1480	2140	
005	7/19/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	97	959	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
005	7/20/18 7:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	86	243	
005	7/21/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	301	
005	7/22/18 7:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17	148	288	
005	8/1/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	183	96	
005	8/6/18 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	0	228	
005	8/7/18 7:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	109	
005	8/8/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	0	379	
005	8/9/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04	238	738	
005	8/20/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.14	10	52	
005	8/27/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	146	
005	8/28/18 9:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	379	
005	8/29/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	471	
005	8/30/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	495	
005	8/31/18 7:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	96	
005	9/7/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	30	173	
005	9/17/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	63	189	
005	9/18/18 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	3780	74	
005	9/19/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	3260	10500	
005	9/20/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	327	1070	
005	9/21/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	74	404	
005	9/22/18 6:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03	31	173	
005	9/23/18 7:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	10	309	
005	10/2/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.29	0.35	0.35	52	573	
005	10/9/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	74	253	
005	10/10/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	226	
005	10/11/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	135	882	
005	10/12/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	405	2010	
005	10/13/18 7:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82	388	1050	
005	10/14/18 7:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22	63	529	
005	10/15/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	74	309	
005	10/16/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	135	839	
005	10/18/18 9:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.03	291	933	
005	10/26/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	41	393	
005	10/27/18 7:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17	345	6130	
005	10/28/18 6:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2	169	1010	
005	10/29/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	350	1480	
005	10/30/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	1670	1900	
005	10/31/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	171	350	
005	11/2/18 9:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.37	0.37	109	318	
005	11/10/18 6:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55	645	203	
005	11/11/18 7:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55	193	1070	
005	11/12/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45	259	238	
005	11/13/18 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1	433	448	
005	11/14/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1	657	842	
005	11/15/18 10:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	0.46	1.56	108	278	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
005	11/27/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	1.33	2.11	3280	1480	
006	4/9/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	10	63	
006	4/10/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	62	
006	4/11/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	110	
006	5/23/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	31	30	
006	5/24/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	41	52	
006	5/25/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	31	10	
006	5/29/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	62	63	
006	5/30/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	0	20	
006	5/31/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	20	
006	6/25/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	2190	1720	
006	6/26/18 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	677	313	
006	6/27/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	10	52	
006	6/29/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	471	488	
006	7/2/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	110	
006	7/3/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	10	20	
006	7/18/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	331	833	
006	7/19/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	98	504	
006	7/20/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	119	311	
006	7/21/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	246	209	
006	8/6/18 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	185	
006	8/7/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	52	
006	8/8/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	10	10	
006	8/27/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	63	
006	8/28/18 9:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	110	
006	8/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	749	
006	8/30/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	314	
006	8/31/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	74	
006	9/19/18 9:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	2280	5170	
006	9/20/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	546	1180	
006	9/21/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	52	426	
006	10/9/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	30	154	
006	10/10/18 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	173	
006	10/26/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	135	798	
006	10/29/18 9:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	441	1080	
006	10/30/18 9:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	1180	1920	
006	10/31/18 9:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	345	384	
007	3/2/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31	63	275	
007	3/3/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3	880	960	
007	3/4/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3	443	1620	
007	3/5/18 9:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	107	336	
007	3/6/18 9:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	85	359	
007	3/7/18 9:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	74	134	
007	4/4/18 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	41	285	
007	4/5/18 8:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	161	1100	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
007	4/6/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	41	148	
007	4/9/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	41	489	
007	4/9/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0.01	0	457	
007	4/10/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	158	
007	4/10/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	20	218	
007	4/11/18 8:27 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0	74	419	
007	4/11/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	135	
007	4/13/18 6:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	20	226	
007	4/17/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	1040	1480	
007	4/18/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	318	1080	
007	4/19/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	63	546	
007	4/20/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	161	528	
007	4/21/18 6:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23	52	620	
007	5/23/18 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	20	52	
007	5/23/18 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.02	0.05	0.05	10	52	
007	5/24/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	0	63	
007	5/24/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0.02	0.05	52	336	
007	5/25/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	20	63	
007	5/25/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.02	10	145	
007	5/29/18 7:43 AM	B	CHARLES RIVER	MID-BASIN	3.1	0	0.06	0.08	20	121	
007	5/29/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	31	168	
007	5/30/18 7:30 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.06	20	309	
007	5/30/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	122	
007	5/31/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	98	748	
007	5/31/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	98	
007	6/25/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	73	98	
007	6/25/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.33	0.59	0.59	41	98	
007	6/26/18 8:02 AM	B	CHARLES RIVER	MID-BASIN	4	0	0.33	0.59	52	199	
007	6/26/18 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	51	189	
007	6/27/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.09	0.09	0.42	41	86	
007	6/27/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	10	86	
007	6/28/18 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	243	565	
007	6/29/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	1660	1200	
007	6/29/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4	0	1.16	1.25	368	798	
007	6/30/18 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16	84	240	
007	7/1/18 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	238	
007	7/2/18 7:41 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	20	40	
007	7/2/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	20	
007	7/3/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	0	20	
007	7/3/18 7:51 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.01	0.01	0.01	73	63	
007	7/18/18 7:36 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.06	2.74	2.74	776	3650	
007	7/18/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	959	1620	
007	7/19/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	41	134	
007	7/19/18 7:37 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0.06	2.74	185	545	
007	7/20/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	41	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
007	7/20/18 7:33 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.06	52	10	
007	7/21/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	41	
007	7/21/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	122	364	
007	7/22/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17	146	31	
007	8/6/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	145	
007	8/6/18 7:55 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0.64	41	528	
007	8/7/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
007	8/7/18 7:21 AM	B	CHARLES RIVER	MID-BASIN	4.4	0	0	0	10	187	
007	8/8/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.98	0.98	0.98	0	41	
007	8/8/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	0	41	
007	8/9/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04	52	359	
007	8/27/18 8:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	41	
007	8/27/18 8:17 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	0	63	
007	8/28/18 9:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	107	
007	8/28/18 9:39 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	0	246	
007	8/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
007	8/29/18 7:39 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	0	161	
007	8/30/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	131	
007	8/30/18 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	10	74	
007	8/31/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	10	146	
007	8/31/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	98	
007	9/18/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	31	96	
007	9/19/18 8:57 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	1.15	1.15	789	2380	
007	9/19/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	1170	5170	
007	9/20/18 8:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	836	2250	
007	9/20/18 8:47 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	1.15	609	2480	
007	9/21/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	10	512	
007	9/21/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	41	613	
007	9/22/18 6:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03	31	146	
007	9/23/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03	0	108	
007	10/9/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	52	331	
007	10/9/18 8:16 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0.1	86	327	
007	10/10/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	131	
007	10/10/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	31	161	
007	10/11/18 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	20	109	
007	10/12/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	85	794	
007	10/13/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82	292	959	
007	10/14/18 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22	84	583	
007	10/15/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	74	313	
007	10/16/18 9:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	41	288	
007	10/26/18 9:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	84	275	
007	10/26/18 9:04 AM	B	CHARLES RIVER	MID-BASIN	4.6	0	0	0.04	41	328	
007	10/27/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17	41	384	
007	10/28/18 6:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2	1150	4110	
007	10/29/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.52	0.55	1.72	1010	1730	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
007	10/29/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	1530	1940	
007	10/30/18 9:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	487	2500	
007	10/30/18 9:06 AM	B	CHARLES RIVER	MID-BASIN	4	0	0.52	0.55	695	2280	
007	10/31/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	393	771	
007	10/31/18 9:17 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0.52	313	933	
007	11/10/18 6:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55	10	160	
007	11/11/18 7:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55	328	816	
007	11/12/18 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45	199	487	
007	11/13/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1	134	336	
007	11/14/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1	246	733	
145	3/2/18 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31	1080	9210	
145	3/3/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3	3450	3450	
145	3/4/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3	1620	15500	
145	3/5/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	907	6490	
145	3/6/18 9:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	160	933	
145	3/7/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	195	6490	
145	4/4/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	173	557	
145	4/5/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	74	583	
145	4/6/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	0	411	
145	4/9/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	31	183	
145	4/10/18 8:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	31	292	
145	4/11/18 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	74	428	
145	4/13/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	31	160	
145	4/17/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	933	2100	
145	4/18/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	197	489	
145	4/19/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	108	1160	
145	4/20/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	74	275	
145	4/21/18 6:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23	20	199	
145	5/23/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	20	52	
145	5/24/18 8:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	226	1380	
145	5/25/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	97	313	
145	5/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	0	74	
145	5/30/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	185	839	
145	5/31/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	169	
145	6/25/18 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	345	408	
145	6/26/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	63	331	
145	6/27/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	10	122	
145	6/28/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	504	246	
145	6/29/18 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	1150	1620	
145	6/30/18 6:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16	199	594	
145	7/1/18 6:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	41	169	
145	7/2/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	52	169	
145	7/3/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	31	145	
145	7/18/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	1050	1960	
145	7/19/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	74	393	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
145	7/20/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	61	
145	7/21/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
145	7/22/18 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17	0	189	
145	8/6/18 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	52	
145	8/7/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	120	
145	8/8/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	0	41	
145	8/9/18 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04	211	960	
145	8/27/18 8:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	226	
145	8/28/18 9:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	41	
145	8/29/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	52	
145	8/30/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	201	
145	8/31/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	51	354	
145	9/18/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	74	373	
145	9/19/18 9:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	2250	6130	
145	9/20/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	249	1720	
145	9/21/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	52	528	
145	9/22/18 5:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03	0	146	
145	9/23/18 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03	31	472	
145	10/9/18 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	31	171	
145	10/10/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	31	272	
145	10/11/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	41	189	
145	10/12/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	377	2060	
145	10/13/18 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82	780	3130	
145	10/14/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22	52	627	
145	10/15/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	74	158	
145	10/16/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	20	432	
145	10/26/18 9:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	134	771	
145	10/27/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17	160	633	
145	10/28/18 6:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2	2600	6490	
145	10/29/18 8:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	1050	3260	
145	10/30/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	393	1300	
145	10/31/18 9:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	512	959	
145	11/10/18 6:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55	1220	4110	
145	11/11/18 6:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55	213	441	
145	11/12/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45	121	199	
145	11/13/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1	538	1780	
145	11/14/18 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1	295	638	
008	4/9/18 8:00 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.01	20	368	
008	4/9/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	132	426	
008	4/10/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0	31	448	
008	4/10/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	74	465	
008	4/11/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	74	379	
008	4/11/18 8:21 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	107	504	
008	5/23/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	0	62	
008	5/23/18 7:43 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.02	0.05	0.05	0	158	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
008	5/24/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0.02	0.05	62	278	
008	5/24/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	20	134	
008	5/25/18 8:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	10	145	
008	5/25/18 8:07 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0.02	41	262	
008	5/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	10	143	
008	5/29/18 7:39 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0.06	0.08	0	199	
008	5/30/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	62	272	
008	5/30/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0	0.06	110	766	
008	5/31/18 7:35 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0	10	108	
008	5/31/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	122	
008	6/25/18 8:02 AM	B	CHARLES RIVER	MID-BASIN	3.5	0.33	0.59	0.59	443	2850	
008	6/25/18 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	187	1040	
008	6/26/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	0	119	
008	6/26/18 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0.33	0.59	41	213	
008	6/27/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	0	74	
008	6/27/18 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.09	0.09	0.42	10	74	
008	6/29/18 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	1310	1560	
008	6/29/18 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	1.16	1.25	148	197	
008	7/2/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	20	
008	7/2/18 7:36 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	41	31	
008	7/3/18 7:45 AM	B	CHARLES RIVER	MID-BASIN	3.2	0.01	0.01	0.01	31	30	
008	7/3/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	10	31	
008	7/18/18 7:32 AM	B	CHARLES RIVER	MID-BASIN	3.4	0.06	2.74	2.74	1300	4350	
008	7/18/18 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	1080	1860	
008	7/19/18 7:29 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0.06	2.74	109	554	
008	7/19/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	41	426	
008	7/20/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	41	74	
008	7/20/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0.06	10	31	
008	7/21/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	84	
008	7/21/18 7:30 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0	0	30	
008	8/6/18 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0.64	74	148	
008	8/6/18 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	31	
008	8/7/18 7:14 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	0	74	
008	8/7/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	52	
008	8/8/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	0	10	
008	8/8/18 8:08 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.98	0.98	0.98	10	41	
008	8/27/18 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
008	8/27/18 8:12 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	0	135	
008	8/28/18 9:42 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	0	10	
008	8/28/18 9:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
008	8/29/18 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
008	8/29/18 7:31 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0	0	0	98	
008	8/30/18 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	0	
008	8/30/18 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	20	175	
008	8/31/18 7:29 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	0	74	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
008	8/31/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
008	9/19/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	2.5	0	1.15	1.15	2490	6130	
008	9/19/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	1920	5170	
008	9/20/18 8:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	373	627	
008	9/20/18 8:43 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	1.15	275	717	
008	9/21/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	72	669	
008	9/21/18 7:37 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	73	620	
008	10/9/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	10	384	
008	10/9/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.1	41	379	
008	10/10/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	10	183	
008	10/10/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	173	
008	10/26/18 8:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	98	404	
008	10/26/18 8:59 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0.04	20	288	
008	10/29/18 8:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	959	5790	
008	10/29/18 8:47 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.52	0.55	1.72	813	2140	
008	10/30/18 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	404	1300	
008	10/30/18 9:00 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.52	0.55	487	1330	
008	10/31/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	341	1040	
008	10/31/18 9:12 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0.52	435	1190	
009	3/2/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31	41	573	
009	3/3/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3	282	1180	
009	3/4/18 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3	278	2190	
009	3/5/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	259	1110	
009	3/6/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	122	512	
009	3/7/18 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	146	1050	
009	4/4/18 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	213	1050	
009	4/5/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	246	1530	
009	4/6/18 7:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	20	907	
009	4/9/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	84	581	
009	4/9/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0.01	0	85	
009	4/10/18 7:57 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	0	41	
009	4/10/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	122	689	
009	4/11/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	313	
009	4/11/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	0	10	
009	4/13/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	63	389	
009	4/17/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	504	2480	
009	4/18/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	395	1040	
009	4/19/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	85	1540	
009	4/20/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	364	2140	
009	4/21/18 6:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23	323	2190	
009	5/23/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	10	20	
009	5/23/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.02	0.05	0.05	0	31	
009	5/24/18 8:00 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.02	0.05	0	10	
009	5/24/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	20	52	
009	5/25/18 7:56 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.02	0	20	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
009	5/25/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	30	145	
009	5/29/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	20	132	
009	5/29/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.06	0.08	0	10	
009	5/30/18 7:21 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0.06	0	10	
009	5/30/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	31	243	
009	5/31/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	134	
009	5/31/18 7:25 AM	B	CHARLES RIVER	MID-BASIN	7.6	0	0	0	0	20	
009	6/25/18 7:55 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.33	0.59	0.59	0	20	
009	6/25/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	0	10	
009	6/26/18 7:48 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0.33	0.59	0	31	
009	6/26/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	10	63	
009	6/27/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	20	0	
009	6/27/18 7:35 AM	B	CHARLES RIVER	MID-BASIN	7.8	0.09	0.09	0.42	0	0	
009	6/28/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	10	0	
009	6/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	226	441	
009	6/29/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	1.16	1.25	0	0	
009	6/30/18 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16	41	226	
009	7/2/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
009	7/2/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0	0	0	10	
009	7/3/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	0	10	
009	7/3/18 7:33 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.01	0.01	0.01	0	0	
009	7/18/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.06	2.74	2.74	0	52	
009	7/18/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	228	638	
009	7/19/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	0	169	
009	7/19/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0.06	2.74	0	31	
009	7/20/18 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	31	
009	7/20/18 7:24 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.06	10	20	
009	7/21/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
009	7/21/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0	0	0	
009	7/22/18 6:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17	0	0	
009	8/6/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	63	
009	8/6/18 7:38 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.64	0	0	
009	8/7/18 7:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	0	
009	8/7/18 7:07 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	0	0	
009	8/8/18 7:59 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.98	0.98	0.98	0	0	
009	8/8/18 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	0	20	
009	8/9/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04	0	74	
009	8/27/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
009	8/27/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	0	20	
009	8/28/18 9:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	52	
009	8/28/18 9:47 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0	0	10	
009	8/29/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
009	8/29/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	0	0	
009	8/30/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	0	0	
009	8/30/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
009	8/31/18 7:22 AM	B	CHARLES RIVER	MID-BASIN	6.9	0	0	0	10	63	
009	8/31/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	20	
009	9/18/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	10	41	
009	9/19/18 8:44 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	1.15	1.15	0	168	
009	9/19/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	74	521	
009	9/20/18 8:38 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	1.15	0	74	
009	9/20/18 8:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	253	620	
009	9/21/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	10	63	
009	9/21/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	84	364	
009	9/22/18 5:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03	10	189	
009	9/23/18 6:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03	0	135	
009	10/9/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	0	95	
009	10/9/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0.1	0	0	
009	10/10/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	148	
009	10/10/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0	0	0	
009	10/11/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	10	85	
009	10/12/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	10	109	
009	10/13/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82	122	1080	
009	10/14/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22	278	1310	
009	10/15/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	74	323	
009	10/16/18 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	52	345	
009	10/26/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0.04	0	31	
009	10/26/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	85	388	
009	10/27/18 6:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17	52	332	
009	10/28/18 6:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2	259	959	
009	10/29/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	480	1450	
009	10/29/18 8:41 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.52	0.55	1.72	0	213	
009	10/30/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	591	3870	
009	10/30/18 8:51 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.52	0.55	0	41	
009	10/31/18 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	354	1110	
009	10/31/18 9:00 AM	B	CHARLES RIVER	MID-BASIN	6	0	0	0.52	416	1670	
009	11/10/18 6:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55	30	262	
009	11/11/18 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55	1270	2140	
009	11/12/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45	201	712	
009	11/13/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1	110	537	
009	11/14/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1	657	1840	
010	4/9/18 7:45 AM	B	CHARLES RIVER	MID-BASIN	7.4	0	0	0.01	0	98	
010	4/9/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	20	413	
010	4/10/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	96	565	
010	4/10/18 7:50 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0	0	10	109	
010	4/11/18 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	41	243	
010	4/11/18 8:09 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	31	41	
010	5/23/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	7.8	0.02	0.05	0.05	0	10	
010	5/23/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	0	20	
010	5/24/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	10	0	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
010	5/24/18 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0.02	0.05	20	10	
010	5/25/18 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	10	74	
010	5/25/18 7:47 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.02	0	0	
010	5/29/18 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	0	63	
010	5/29/18 7:20 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0.06	0.08	20	20	
010	5/30/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	121	
010	5/30/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.06	20	10	
010	5/31/18 7:17 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	0	0	
010	5/31/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	109	
010	6/25/18 7:48 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.33	0.59	0.59	0	0	
010	6/25/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	20	10	
010	6/26/18 7:41 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0.33	0.59	20	10	
010	6/26/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	10	63	
010	6/27/18 10:17 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.09	0.09	0.42	20	0	
010	6/27/18 10:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	0	10	
010	6/29/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	1.16	1.25	20	20	
010	6/29/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	189	441	
010	7/2/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	20	
010	7/2/18 7:19 AM	B	CHARLES RIVER	MID-BASIN	5.8	0	0	0	10	10	
010	7/3/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.01	0.01	0.01	20	10	
010	7/3/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	10	10	
010	7/18/18 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	0	74	
010	7/18/18 7:18 AM	B	CHARLES RIVER	MID-BASIN	7.5	0.06	2.74	2.74	0	20	
010	7/19/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	10	63	
010	7/19/18 7:16 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0.06	2.74	10	10	
010	7/20/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	10	
010	7/20/18 7:17 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.06	31	20	
010	7/21/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
010	7/21/18 7:16 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	10	10	
010	8/6/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	10	30	
010	8/6/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.64	0	10	
010	8/7/18 7:00 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	0	20	
010	8/7/18 7:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
010	8/8/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	0	0	
010	8/8/18 7:51 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.98	0.98	0.98	10	10	
010	8/27/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	10	
010	8/27/18 7:58 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	0	10	
010	8/28/18 9:52 AM	B	CHARLES RIVER	MID-BASIN	8.9	0	0	0	30	0	
010	8/28/18 9:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
010	8/29/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
010	8/29/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	0	20	
010	8/30/18 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	10	52	
010	8/30/18 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
010	8/31/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0	0	63	
010	8/31/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	63	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
010	9/19/18 8:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	30	108	
010	9/19/18 8:38 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	1.15	1.15	10	201	
010	9/20/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	96	448	
010	9/20/18 8:33 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	1.15	96	359	
010	9/21/18 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	97	323	
010	9/21/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	63	350	
010	10/9/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	0	98	
010	10/9/18 7:58 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	0	0.1	41	74	
010	10/10/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	86	
010	10/10/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0	0	52	145	
010	10/26/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	52	419	
010	10/26/18 8:45 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0.04	0	74	
010	10/29/18 8:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	496	1940	
010	10/29/18 8:36 AM	B	CHARLES RIVER	MID-BASIN	7.2	0.52	0.55	1.72	20	233	
010	10/30/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	428	1560	
010	10/30/18 8:45 AM	B	CHARLES RIVER	MID-BASIN	7.6	0	0.52	0.55	10	86	
010	10/31/18 9:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	428	1500	
010	10/31/18 9:01 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.52	240	1010	
210	3/2/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31	98	435	
210	3/3/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3	256	1470	
210	3/4/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3	496	2360	
210	3/5/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	323	1080	
210	3/6/18 9:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	110	888	
210	3/7/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	121	882	
210	4/4/18 9:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	0	160	
210	4/5/18 8:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	158	752	
210	4/6/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	31	563	
210	4/9/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	31	771	
210	4/10/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	299	
210	4/11/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	30	305	
210	4/13/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	10	223	
210	4/17/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	405	1170	
210	4/18/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	345	2010	
210	4/19/18 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	223	1130	
210	4/20/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	63	448	
210	4/21/18 6:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23	20	609	
210	5/23/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	0	10	
210	5/24/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	0	52	
210	5/25/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	31	62	
210	5/29/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	40	31	
210	5/30/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	10	52	
210	5/31/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	63	
210	6/25/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	52	10	
210	6/26/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	0	52	
210	6/27/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	0	10	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
210	6/28/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	0	10	
210	6/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	0	109	
210	6/30/18 7:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16	10	309	
210	7/1/18 5:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	31	
210	7/2/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	41	
210	7/3/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	10	0	
210	7/18/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	10	20	
210	7/19/18 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	10	20	
210	7/20/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20	86	
210	7/21/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	20	
210	7/22/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17	10	0	
210	8/6/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	0	52	
210	8/7/18 6:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
210	8/8/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	10	0	
210	8/9/18 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04	30	20	
210	8/27/18 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	72	
210	8/28/18 9:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
210	8/29/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	86	
210	8/30/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
210	8/31/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	73	
210	9/18/18 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	63	52	
210	9/19/18 8:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	52	173	
210	9/20/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	41	228	
210	9/21/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	318	
210	9/22/18 6:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03	41	134	
210	9/23/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03	20	185	
210	10/9/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	0	85	
210	10/10/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	132	
210	10/11/18 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	10	173	
210	10/12/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	52	301	
210	10/13/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82	120	749	
210	10/14/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22	41	504	
210	10/15/18 8:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	86	410	
210	10/16/18 9:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	0	201	
210	10/26/18 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	74	323	
210	10/27/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17	20	368	
210	10/28/18 6:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2	52	450	
210	10/29/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	520	1100	
210	10/30/18 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	428	1660	
210	10/31/18 8:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	620	1860	
210	11/10/18 6:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55	41	228	
210	11/11/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55	199	594	
210	11/12/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45	199	771	
210	11/13/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1	120	292	
210	11/14/18 8:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1	97	341	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
166	1/29/18 10:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03	51	309	
166	2/13/18 9:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.69	135	1078.5	
166	2/27/18 10:19 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.51	31	393	
166	3/16/18 9:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.04	52	691	
166	3/26/18 9:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.07	0.08	20	472	
166	4/12/18 9:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.06	0.06	0	96	
166	4/23/18 9:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	20	85	
166	5/8/18 9:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.19	20	143	
166	5/22/18 9:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.11	10	41	
166	6/4/18 9:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.62	0.62	0.63	20	148	
166	6/19/18 8:46 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.14	0.14	0	10	
166	7/5/18 8:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	0	0	
166	7/16/18 8:37 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.32	0	0	
166	8/1/18 9:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	31	
166	8/20/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.14	0	31	
166	9/7/18 9:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03	10	31	
166	9/17/18 8:48 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	20	74	
166	10/2/18 8:48 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.29	0.35	0.35	15	120.5	
166	10/18/18 9:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.03	20	158	
166	11/2/18 9:36 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.36	0.37	0.37	95	408	
166	11/15/18 10:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.46	0.46	1.56	332	733	
166	11/27/18 9:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.46	1.33	2.11	389	1210	
166	12/10/18 9:40 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	41	441	
166	12/26/18 10:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	31	408	
011	3/2/18 7:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	2.3	2.3	2.31	74	341	
011	3/3/18 7:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	2.3	2.3	471	1610	
011	3/4/18 6:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	2.3	288	1410	
011	3/5/18 8:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.05	0.05	0.05	247	987	
011	3/6/18 8:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.05	0.05	145	958	
011	3/7/18 8:21 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.55	0.55	0.6	161	759	
011	4/4/18 8:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.2	0.67	0.78	31	299	
011	4/5/18 7:54 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.2	0.67	41	341	
011	4/6/18 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.21	0.21	0.41	41	504	
011	4/9/18 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	0	281	
011	4/9/18 7:30 AM	B	CHARLES RIVER	LOWER BASIN	5	0	0	0.01	20	272	
011	4/10/18 7:37 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	354	
011	4/10/18 7:37 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0	10	187	
011	4/11/18 7:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	30	275	
011	4/11/18 7:56 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0	110	195	
011	4/17/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.57	1.61	448	1420	
011	4/18/18 7:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.57	537	1780	
011	4/19/18 7:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.23	0.23	0.23	197	935	
011	4/20/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.23	0.23	109	780	
011	4/21/18 5:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.23	52	341	
011	5/23/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.02	0.05	0.05	10	20	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
011	5/23/18 7:11 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0.02	0.05	0.05	10	52	
011	5/24/18 7:33 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.02	0.05	10	10	
011	5/24/18 7:33 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0.02	0.05	20	20	
011	5/25/18 7:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	10	31	
011	5/25/18 7:15 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0.02	10	158	
011	5/29/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	0.08	0	31	
011	5/29/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0	0.06	0.08	41	31	
011	5/30/18 7:00 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0.06	31	98	
011	5/30/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.06	0	110	
011	5/31/18 7:04 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0	0	10	109	
011	5/31/18 7:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	97	
011	6/25/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.33	0.59	0.59	74	1140	
011	6/25/18 7:32 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0.33	0.59	0.59	169	318	
011	6/26/18 7:24 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0.33	0.59	109	171	
011	6/26/18 7:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.33	0.59	10	10	
011	6/27/18 7:14 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.09	0.09	0.42	109	108	
011	6/27/18 7:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.09	0.09	0.42	20	31	
011	6/28/18 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.16	1.25	1.25	216	457	
011	6/29/18 7:18 AM	B	CHARLES RIVER	LOWER BASIN	6.3	0	1.16	1.25	161	132	
011	6/29/18 7:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.16	1.25	52	85	
011	6/30/18 6:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.16	31	169	
011	7/1/18 6:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	131	
011	7/2/18 7:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	10	
011	7/2/18 7:06 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0	31	41	
011	7/3/18 7:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.01	52	82	
011	7/3/18 7:10 AM	B	CHARLES RIVER	LOWER BASIN	4.3	0.01	0.01	0.01	51	31	
011	7/18/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0.06	2.74	2.74	134	148	
011	7/18/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	2.74	2.74	86	20	
011	7/19/18 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	2.74	0	63	
011	7/19/18 7:01 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.06	2.74	97	119	
011	7/20/18 7:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.06	10	63	
011	7/20/18 7:04 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0	0.06	20	74	
011	7/21/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	10	
011	7/21/18 7:00 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0	41	10	
011	7/22/18 6:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.17	0.17	0.17	780	624	
011	8/6/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.64	10	41	
011	8/6/18 7:11 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0.64	0	41	
011	8/7/18 6:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	74	
011	8/7/18 6:43 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	0	10	
011	8/8/18 7:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.98	0.98	0.98	10	20	
011	8/8/18 7:34 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0.98	0.98	0.98	10	0	
011	8/9/18 7:50 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	1.04	1.04	160	246	
011	8/27/18 7:42 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	31	
011	8/27/18 7:42 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0	0	0	
011	8/28/18 10:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	10	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
011	8/28/18 10:06 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0	0	10	120	
011	8/29/18 6:58 AM	B	CHARLES RIVER	LOWER BASIN	4.9	0	0	0	0	20	
011	8/29/18 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	31	
011	8/30/18 7:16 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0	52	185	
011	8/30/18 7:16 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	20	
011	8/31/18 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	74	
011	8/31/18 7:01 AM	B	CHARLES RIVER	LOWER BASIN	4.6	0	0	0	0	41	
011	9/18/18 7:02 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.15	1.15	1.15	2760	11200	
011	9/19/18 8:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.15	1.15	73	359	
011	9/19/18 8:26 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	1.15	1.15	86	431	
011	9/20/18 8:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.15	74	272	
011	9/20/18 8:23 AM	B	CHARLES RIVER	LOWER BASIN	4.4	0	0	1.15	52	259	
011	9/21/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	41	335	
011	9/21/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0	0	0	10	246	
011	9/22/18 5:42 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.03	30	285	
011	9/23/18 6:46 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03	52	185	
011	10/9/18 7:47 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0	0.1	20	85	
011	10/9/18 7:47 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.1	0	84	
011	10/10/18 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	74	
011	10/10/18 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	0	0	0	63	
011	10/11/18 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.6	0.6	0.6	31	209	
011	10/12/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.09	0.69	0.69	20	256	
011	10/13/18 6:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.13	0.22	0.82	0	201	
011	10/14/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.13	0.22	31	691	
011	10/15/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.2	41	521	
011	10/16/18 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.1	0.1	84	594	
011	10/26/18 8:33 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	30	185	
011	10/26/18 8:33 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0.04	0	278	
011	10/27/18 6:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.17	1.17	1.17	10	359	
011	10/28/18 6:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	1.2	1.2	243	402	
011	10/29/18 8:25 AM	B	CHARLES RIVER	LOWER BASIN	5	0.52	0.55	1.72	148	318	
011	10/29/18 8:25 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.52	0.55	1.72	160	598	
011	10/30/18 8:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.52	0.55	359	1380	
011	10/30/18 8:34 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	0.52	0.55	359	1330	
011	10/31/18 8:50 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.52	565	1730	
011	10/31/18 8:50 AM	B	CHARLES RIVER	LOWER BASIN	3.4	0	0	0.52	364	1560	
011	11/10/18 6:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.45	1.55	1.55	110	218	
011	11/11/18 6:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.45	1.55	402	1380	
011	11/12/18 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.45	336	789	
011	11/13/18 8:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.1	1.1	1.1	206	504	
011	11/14/18 8:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.1	1.1	201	743	
174	4/24/18 10:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	40	10	
174	4/25/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	0	10	
174	4/26/18 9:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	2330	909	
174	4/27/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	748	272	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
174	4/28/18 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	393	110	
174	4/29/18 7:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	145	74	
174	4/30/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	20	135	
174	5/3/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	41	669	
174	5/4/18 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	41	20	
174	5/16/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	3450	14100	
174	5/17/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	373	1350	
174	5/18/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	171	1550	
174	5/19/18 7:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	31	9210	
174	5/20/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	96	246	
174	5/21/18 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	146	4880	
174	6/5/18 8:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	1180	1780	
174	6/6/18 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	1660	1520	
174	6/7/18 8:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	122	285	
174	6/8/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	327	1720	
174	6/9/18 8:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	148	727	
174	6/10/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	187	98	
174	7/6/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	754	1560	
174	7/7/18 7:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	2140	12000	
174	7/8/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	789	2760	
174	7/9/18 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	697	1670	
174	7/10/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	520	1440	
174	7/11/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	631	789	
174	7/17/18 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	331	609	
174	7/27/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	617	1500	
174	7/28/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	156	345	
174	7/29/18 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	201	1240	
174	7/30/18 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	74	520	
174	7/31/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	160	416	
174	8/13/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	609	1160	
174	8/14/18 9:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	332	987	
174	8/15/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	703	3650	
174	8/16/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	108	402	
174	8/17/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	85	160	
174	8/18/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	185	231	
174	8/19/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	197	203	
174	9/10/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	85	1940	
174	9/11/18 9:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	3870	11200	
174	9/12/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	323	1470	
174	9/13/18 10:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	3650	5790	
174	9/14/18 10:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	51	933	
174	9/26/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	2050	4350	
174	9/27/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	748	1940	
174	9/28/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	223	754	
174	9/29/18 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	135	529	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
174	9/30/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	134	512	
174	10/22/18 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	0	97	
174	10/23/18 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	10	110	
174	10/24/18 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	359	754	
174	11/4/18 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	862	1500	
174	11/5/18 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	161	798	
174	11/6/18 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	201	627	
174	11/7/18 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	281	708	
174	11/8/18 11:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	31	216	
074	4/24/18 10:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	97	
074	4/25/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	30	12000	
074	4/26/18 9:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	2180	2910	
074	4/27/18 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	801	199	
074	4/28/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	459	213	
074	4/29/18 7:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	74	74	
074	4/30/18 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	0	20	
074	5/3/18 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	20	199	
074	5/4/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	4110	122	
074	5/16/18 9:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	2910	17300	
074	5/17/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	808	1940	
074	5/18/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	95	733	
074	5/19/18 7:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	74	581	
074	5/20/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	134	364	
074	5/21/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	97	552	
074	6/5/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	1780	1520	
074	6/6/18 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	2100	2140	
074	6/7/18 8:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	228	583	
074	6/8/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	169	638	
074	6/9/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	228	565	
074	6/10/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	31	669	
074	7/6/18 8:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	959	1310	
074	7/7/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	1780	15500	
074	7/8/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	617	2060	
074	7/9/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	238	907	
074	7/10/18 8:49 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	359	594	
074	7/11/18 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	175	554	
074	7/17/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	233	794	
074	7/27/18 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	292	1550	
074	7/28/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	110	395	
074	7/29/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	132	373	
074	7/30/18 8:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	31	269	
074	7/31/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	145	379	
074	8/13/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	563	886	
074	8/14/18 9:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	336	733	
074	8/15/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	520	2190	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
074	8/16/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	85	561	
074	8/17/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	20	246	
074	8/18/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	107	160	
074	8/19/18 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	187	359	
074	9/10/18 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	109	683	
074	9/11/18 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	4350	10500	
074	9/12/18 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	323	1040	
074	9/13/18 10:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	3450	4350	
074	9/14/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	74	766	
074	9/26/18 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	1470	6870	
074	9/27/18 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	638	1500	
074	9/28/18 10:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	146	355	
074	9/29/18 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	135	583	
074	9/30/18 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	109	243	
074	10/22/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	30	472	
074	10/23/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	110	294	
074	10/24/18 9:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	368	670	
074	11/4/18 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	882	1540	
074	11/5/18 10:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	97	650	
074	11/6/18 10:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	185	727	
074	11/7/18 10:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	243	839	
074	11/8/18 11:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	20	187	
277	4/24/18 10:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	31	74	
277	4/25/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	85	712	
277	4/26/18 8:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	1010	1070	
277	4/27/18 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	211	292	
277	4/28/18 7:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	185	459	
277	4/29/18 6:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	10	110	
277	4/30/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	63	52	
277	5/3/18 8:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	187	97	
277	5/4/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	132	108	
277	5/16/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	2360	17300	
277	5/17/18 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	545	1610	
277	5/18/18 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	108	354	
277	5/19/18 6:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	161	1470	
277	5/20/18 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	171	472	
277	5/21/18 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	240	256	
277	6/5/18 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	1400	1260	
277	6/6/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	1850	2380	
277	6/7/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	359	288	
277	6/8/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	259	471	
277	6/9/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	226	487	
277	6/10/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	243	259	
277	7/6/18 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	341	292	
277	7/7/18 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	1520	14100	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
277	7/8/18 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	373	573	
277	7/9/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	183	364	
277	7/10/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	771	218	
277	7/11/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	199	384	
277	7/17/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	359	336	
277	7/27/18 8:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	958	2380	
277	7/28/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	74	169	
277	7/29/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	109	275	
277	7/30/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1310	3080	
277	7/31/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	960	422	
277	8/13/18 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	1470	1940	
277	8/14/18 9:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	1380	1920	
277	8/15/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	987	2140	
277	8/16/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	1990	1720	
277	8/17/18 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	1100	1140	
277	8/18/18 8:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	763	2360	
277	8/19/18 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	586	12000	
277	9/10/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	31	332	
277	9/11/18 9:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	5170	11200	
277	9/12/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	294	1400	
277	9/13/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	3650	4610	
277	9/14/18 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	160	933	
277	9/26/18 10:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	3450	5170	
277	9/27/18 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	450	2050	
277	9/28/18 9:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	135	697	
277	9/29/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	253	368	
277	9/30/18 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	120	262	
277	10/22/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	744	3450	
277	10/23/18 9:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	41	399	
277	10/24/18 9:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	546	1990	
277	11/4/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	759	1940	
277	11/5/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	135	616	
277	11/6/18 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	156	676	
277	11/7/18 10:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	479	959	
277	11/8/18 10:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	41	83	
172	4/24/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	31	63	
172	4/25/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	109	1330	
172	4/26/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	1170	1190	
172	4/27/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	201	231	
172	4/28/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	175	298	
172	4/29/18 6:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	41	95	
172	4/30/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	30	52	
172	5/3/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	246	148	
172	5/4/18 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	185	199	
172	5/16/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	2360	24200	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
172	5/17/18 9:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	275	1620	
172	5/18/18 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	143	231	
172	5/19/18 6:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	74	1210	
172	5/20/18 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	160	354	
172	5/21/18 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	246	309	
172	6/5/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	1180	1300	
172	6/6/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	2610	1540	
172	6/7/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	171	281	
172	6/8/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	171	246	
172	6/9/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	223	318	
172	6/10/18 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	121	122	
172	7/6/18 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	189	185	
172	7/7/18 7:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	1670	11200	
172	7/8/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	275	624	
172	7/9/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	301	399	
172	7/10/18 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1790	309	
172	7/11/18 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	145	195	
172	7/17/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	189	435	
172	7/27/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	1010	2010	
172	7/28/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	98	175	
172	7/29/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	84	393	
172	7/30/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1130	2760	
172	7/31/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	97	181	
172	8/13/18 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	794	813	
172	8/14/18 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	185	1610	
172	8/15/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	1420	1870	
172	8/16/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	228	1310	
172	8/17/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	160	703	
172	8/18/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	175	1220	
172	8/19/18 7:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	487	9800	
172	9/10/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	30	839	
172	9/11/18 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	4610	14100	
172	9/12/18 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	318	754	
172	9/13/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	3080	4110	
172	9/14/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	120	1140	
172	9/26/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	2250	5480	
172	9/27/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	496	2850	
172	9/28/18 9:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	173	637	
172	9/29/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	235	504	
172	9/30/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	96	275	
172	10/22/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	481	4110	
172	10/23/18 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	134	504	
172	10/24/18 9:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	1260	1070	
172	11/4/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	748	1660	
172	11/5/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	231	413	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
172	11/6/18 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	160	689	
172	11/7/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	288	657	
172	11/8/18 11:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	41	171	
276	4/24/18 9:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	86	
276	4/25/18 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	259	341	
276	4/26/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	1140	1200	
276	4/27/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	345	259	
276	4/28/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	249	185	
276	4/29/18 6:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	41	109	
276	4/30/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	10	41	
276	5/3/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	272	122	
276	5/4/18 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	201	96	
276	5/16/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	2140	15500	
276	5/17/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	457	1780	
276	5/18/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	110	259	
276	5/19/18 6:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	134	683	
276	5/20/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	135	404	
276	5/21/18 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	160	354	
276	6/5/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	1600	1350	
276	6/6/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	3450	1300	
276	6/7/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	292	292	
276	6/8/18 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	213	189	
276	6/9/18 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	121	350	
276	6/10/18 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	292	199	
276	7/6/18 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	109	203	
276	7/7/18 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	1940	11200	
276	7/8/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	354	368	
276	7/9/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	323	546	
276	7/10/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	148	161	
276	7/11/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	199	243	
276	7/17/18 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	109	389	
276	7/27/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	1010	2760	
276	7/28/18 7:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	134	364	
276	7/29/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	97	354	
276	7/30/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1040	4610	
276	7/31/18 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	98	146	
276	8/13/18 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	512	2910	
276	8/14/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	933	2610	
276	8/15/18 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	663	2280	
276	8/16/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	294	2280	
276	8/17/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	216	637	
276	8/18/18 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	146	2010	
276	8/19/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	213	754	
276	9/10/18 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	41	789	
276	9/11/18 9:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	4110	11200	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
276	9/12/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	318	1190	
276	9/13/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	2360	3450	
276	9/14/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	246	839	
276	9/26/18 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	3260	4110	
276	9/27/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	836	1940	
276	9/28/18 9:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	249	544	
276	9/29/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	226	384	
276	9/30/18 7:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	158	183	
276	10/22/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	368	1940	
276	10/23/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	134	487	
276	10/24/18 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	714	959	
276	11/4/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	798	1720	
276	11/5/18 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	85	408	
276	11/6/18 10:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	160	677	
276	11/7/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	256	547	
276	11/8/18 10:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	30	135	
070	4/24/18 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	146	
070	4/25/18 9:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	52	265	
070	4/26/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	1180	820	
070	4/27/18 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	216	432	
070	4/28/18 7:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75	432	173	
070	4/29/18 6:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59	63	52	
070	4/30/18 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	20	74	
070	5/3/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	20	63	
070	5/4/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	134	132	
070	5/16/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	3080	14100	
070	5/17/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	402	1610	
070	5/18/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	213	465	
070	5/19/18 6:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	74	738	
070	5/20/18 7:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28	637	771	
070	5/21/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	292	389	
070	6/5/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	2400	2910	
070	6/6/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	2380	2140	
070	6/7/18 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	443	985	
070	6/8/18 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	364	246	
070	6/9/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	275	512	
070	6/10/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	441	450	
070	7/6/18 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35	288	298	
070	7/7/18 7:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35	1350	6490	
070	7/8/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	98	246	
070	7/9/18 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	187	455	
070	7/10/18 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	282	226	
070	7/11/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	175	712	
070	7/17/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	175	571	
070	7/27/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	904	5170	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
070	7/28/18 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6	135	448	
070	7/29/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	109	299	
070	7/30/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	74	243	
070	7/31/18 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	121	373	
070	8/13/18 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	613	1660	
070	8/14/18 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	798	801	
070	8/15/18 7:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3	1290	2720	
070	8/16/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	243	1560	
070	8/17/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	318	633	
070	8/18/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33	448	1550	
070	8/19/18 7:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34	359	697	
070	9/10/18 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	41	455	
070	9/11/18 9:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	2380	10500	
070	9/12/18 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	345	4350	
070	9/13/18 9:49 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	1610	1720	
070	9/14/18 9:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	63	404	
070	9/26/18 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	2480	3450	
070	9/27/18 9:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	583	2180	
070	9/28/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	601	1150	
070	9/29/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4	359	638	
070	9/30/18 6:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35	98	272	
070	10/22/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	132	171	
070	10/23/18 8:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	231	676	
070	10/24/18 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	1250	3970	
070	11/4/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75	631	1720	
070	11/5/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	197	598	
070	11/6/18 9:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	213	1020	
070	11/7/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14	419	813	
070	11/8/18 10:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78	41	253	
083	1/18/18 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.21	0.21	86	161	
083	1/29/18 9:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	20	52	
083	2/13/18 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.69	20	74	
083	2/27/18 9:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.51	10	52	
083	3/16/18 8:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.04	0	10	
083	3/26/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	0.08	0	20	
083	4/12/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.06	0.06	0	10	
083	4/23/18 8:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	0	
083	4/24/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	10	
083	4/25/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	85	52	
083	4/26/18 8:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	85	63	
083	4/27/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	10	63	
083	4/28/18 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75	10	52	
083	4/29/18 6:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59	0	31	
083	4/30/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	10	41	
083	5/3/18 9:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	0	10	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
083	5/4/18 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	10	10	
083	5/8/18 8:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.19	63	41	
083	5/16/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	2140	1110	
083	5/17/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	368	504	
083	5/18/18 7:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	262	327	
083	5/19/18 6:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	134	216	
083	5/20/18 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28	134	74	
083	5/21/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	41	63	
083	5/22/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.11	85	74	
083	6/4/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.62	0.62	0.63	4110	8660	
083	6/5/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	272	408	
083	6/6/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	341	282	
083	6/7/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	158	122	
083	6/8/18 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	30	63	
083	6/9/18 7:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	246	226	
083	6/10/18 7:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	185	288	
083	6/19/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.14	288	624	
083	7/5/18 7:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	259	246	
083	7/6/18 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35	41	63	
083	7/7/18 6:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35	63	145	
083	7/8/18 7:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	41	109	
083	7/9/18 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	63	
083	7/10/18 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	74	
083	7/11/18 9:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	41	86	
083	7/16/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.32	63	98	
083	7/17/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	10	74	
083	7/27/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	158	663	
083	7/28/18 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6	156	521	
083	7/29/18 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	320	677	
083	7/30/18 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	98	
083	7/31/18 9:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	86	
083	8/1/18 8:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	158	
083	8/13/18 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	504	591	
083	8/14/18 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	173	213	
083	8/15/18 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	85	160	
083	8/16/18 8:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	52	109	
083	8/17/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	10	31	
083	8/18/18 7:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33	74	122	
083	8/19/18 6:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34	109	355	
083	8/20/18 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.14	41	185	
083	9/7/18 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	20	134	
083	9/10/18 9:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	1240	335	
083	9/11/18 8:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	419	759	
083	9/12/18 7:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	20	142	
083	9/13/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	259	281	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
083	9/14/18 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	118	134	
083	9/17/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	203	408	
083	9/26/18 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	221	309	
083	9/27/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	269	422	
083	9/28/18 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	132	295	
083	9/29/18 7:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4	309	556	
083	9/30/18 6:46 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	20	63	
083	10/2/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	0.35	0.35	246	110	
083	10/18/18 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.03	213	31	
083	10/22/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	10	41	
083	10/23/18 8:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	0	52	
083	10/24/18 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	20	86	
083	11/2/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.37	0.37	419	1330	
083	11/4/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75	160	110	
083	11/5/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	41	31	
083	11/6/18 9:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	110	243	
083	11/7/18 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14	84	134	
083	11/8/18 10:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78	0	10	
083	11/15/18 10:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	0.46	1.56	30	52	
083	11/27/18 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	1.33	2.11	749	305	
083	12/10/18 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	74	
057	4/24/18 9:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	0	
057	4/25/18 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	0	10	
057	4/26/18 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	52	168	
057	4/27/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	10	41	
057	4/28/18 7:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75	20	41	
057	4/29/18 6:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59	0	74	
057	4/30/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	0	30	
057	5/3/18 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	0	20	
057	5/4/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	41	41	
057	5/16/18 8:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	1470	752	
057	5/17/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	185	563	
057	5/18/18 7:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	538	384	
057	5/19/18 6:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	74	135	
057	5/20/18 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28	197	285	
057	5/21/18 9:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	20	135	
057	6/5/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	413	487	
057	6/6/18 8:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	609	862	
057	6/7/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	134	97	
057	6/8/18 9:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	52	98	
057	6/9/18 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	86	
057	6/10/18 7:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	97	158	
057	7/6/18 7:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35	148	63	
057	7/7/18 6:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35	2010	528	
057	7/8/18 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	20	74	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
057	7/9/18 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	52	158	
057	7/10/18 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	63	
057	7/11/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	52	120	
057	7/17/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	97	120	
057	7/27/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	275	282	
057	7/28/18 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6	256	259	
057	7/29/18 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	201	335	
057	7/30/18 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	74	
057	7/31/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	148	
057	8/13/18 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	836	1110	
057	8/14/18 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	594	801	
057	8/15/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	74	132	
057	8/16/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	31	96	
057	8/17/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	10	74	
057	8/18/18 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33	156	175	
057	8/19/18 7:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34	187	369	
057	9/10/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	109	345	
057	9/11/18 8:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	1210	1470	
057	9/12/18 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	359	677	
057	9/13/18 9:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	624	766	
057	9/14/18 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	309	399	
057	9/26/18 9:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	1470	2100	
057	9/27/18 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	1520	1660	
057	9/28/18 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	110	563	
057	9/29/18 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4	109	161	
057	9/30/18 6:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	41	120	
057	10/22/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	0	50	
057	10/23/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	52	209	
057	10/24/18 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	31	97	
057	11/4/18 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75	109	221	
057	11/5/18 9:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	41	52	
057	11/6/18 9:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	109	249	
057	11/7/18 9:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14	20	30	
057	11/8/18 10:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78	10	52	
066	1/18/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.21	0.21	84	134	
066	1/29/18 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	20	56.5	
066	2/13/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.69	72	86	
066	2/27/18 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.51	10	109	
066	3/16/18 8:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.04	10	97.5	
066	3/26/18 8:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	0.08	0	85	
066	4/12/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.06	0.06	0	10	
066	4/23/18 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	20	
066	5/8/18 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.19	74	98	
066	5/22/18 8:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.11	51	158	
066	6/4/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.62	0.62	0.63	85	391	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
066	6/19/18 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.14	98	85	
066	7/5/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	52	109	
066	7/16/18 7:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.32	10	41	
066	8/1/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	46.5	250.5	
066	8/20/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.14	310	74	
066	9/7/18 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	41.5	149.5	
066	9/17/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	85	140	
066	10/2/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	0.35	0.35	216	369	
066	10/18/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.03	63	726.5	
066	11/2/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.37	0.37	199.5	176	
066	11/15/18 9:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	0.46	1.56	25.5	57.5	
066	11/27/18 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	1.33	2.11	311	470.5	
066	12/10/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	110	
066	12/26/18 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	449	3325	
056	4/24/18 9:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	121	
056	4/25/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	110	74	
056	4/26/18 9:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	250	311	
056	4/27/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	20	63	
056	4/28/18 6:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75	369	187	
056	4/29/18 6:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59	168	712	
056	4/30/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	10	97	
056	5/3/18 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	10	31	
056	5/4/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	20	134	
056	5/16/18 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	3450	17300	
056	5/17/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	408	1380	
056	5/18/18 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	110	546	
056	5/19/18 6:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	109	250	
056	5/20/18 6:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28	278	677	
056	5/21/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	122	231	
056	6/5/18 9:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	882	1920	
056	6/6/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	862	823	
056	6/7/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	85	145	
056	6/8/18 8:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	121	
056	6/9/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	97	148	
056	6/10/18 6:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	97	
056	7/6/18 6:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35	41	63	
056	7/7/18 6:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35	269	1120	
056	7/8/18 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	63	601	
056	7/9/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	285	
056	7/10/18 8:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	74	
056	7/11/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	20	120	
056	7/17/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	10	74	
056	7/27/18 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	538	1330	
056	7/28/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6	20	369	
056	7/29/18 7:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	85	246	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
056	7/30/18 8:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	97	
056	7/31/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	145	
056	8/13/18 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	216	318	
056	8/14/18 8:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	294	472	
056	8/15/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	145	1100	
056	8/16/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	41	278	
056	8/17/18 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	31	122	
056	8/18/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33	61	907	
056	8/19/18 6:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34	428	987	
056	9/10/18 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	10	109	
056	9/11/18 8:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	3870	4350	
056	9/12/18 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	52	262	
056	9/13/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	573	820	
056	9/14/18 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	74	161	
056	9/26/18 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	2910	3870	
056	9/27/18 8:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	450	1610	
056	9/28/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	132	521	
056	9/29/18 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4	63	520	
056	9/30/18 6:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35	52	218	
056	10/23/18 8:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	20	97	
056	10/24/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	259	771	
056	11/4/18 8:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75	197	448	
056	11/5/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	41	122	
056	11/6/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	110	368	
056	11/7/18 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14	145	288	
056	11/8/18 10:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78	63	108	
177	1/18/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.21	0.21	74	197	
177	1/29/18 9:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	31	122	
177	2/13/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.69	52	122	
177	2/27/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.51	0	169	
177	3/16/18 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.04	20	199	
177	3/26/18 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	0.08	20	134	
177	4/12/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.06	0.06	41	282	
177	4/23/18 8:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	97	
177	5/8/18 7:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.19	10	259	
177	5/22/18 7:42 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.11	20	109	
177	6/4/18 7:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.62	0.62	0.63	41	243	
177	6/19/18 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.14	72	74	
177	7/5/18 7:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	41	31	
177	7/16/18 7:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.32	10	228	
177	8/1/18 7:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	85	
177	8/20/18 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.14	30	148	
177	9/7/18 7:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	0	30	
177	9/17/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	31	135	
177	10/2/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	0.35	0.35	52	169	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
177	10/18/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.03	74	135	
177	11/2/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.37	0.37	41	145	
177	11/15/18 9:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	0.46	1.56	41	132	
177	11/27/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	1.33	2.11	504	1720	
177	12/10/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	30	175	
177	12/26/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	52	657	
067	4/24/18 8:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
067	4/25/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.72	0.72	0.72	10	216	
067	4/26/18 9:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.21	0.93	0.93	63	246	
067	4/27/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.54	0.75	1.47	20	189	
067	4/28/18 6:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.54	0.75	145	262	
067	4/29/18 5:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.59	0	52	
067	4/30/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.25	0.25	20	31	
067	5/3/18 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.09	0.09	0.09	0	20	
067	5/4/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.09	0.09	0	41	
067	5/16/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1	1	437	663	
067	5/17/18 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1	464	24200	
067	5/18/18 9:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	30	2280	
067	5/19/18 6:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	10	391	
067	5/20/18 6:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.28	0.28	10	135	
067	5/21/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.28	0	41	
067	6/5/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.34	0.96	0.96	74	173	
067	6/6/18 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.34	0.96	41	131	
067	6/7/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.34	20	109	
067	6/8/18 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	52	
067	6/9/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	20	10	
067	6/10/18 6:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	20	
067	7/6/18 6:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.35	0.35	30	52	
067	7/7/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.35	41	31	
067	7/8/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35	10	63	
067	7/9/18 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	20	
067	7/10/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	31	10	
067	7/11/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.19	0.19	0.19	0	10	
067	7/17/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	2.68	2.68	2.69	20	20	
067	7/27/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.74	253	933	
067	7/28/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.6	52	98	
067	7/29/18 7:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
067	7/30/18 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	0	
067	7/31/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
067	8/13/18 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	1.67	2.06	288	867	
067	8/14/18 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.3	1.68	84	437	
067	8/15/18 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.3	591	4350	
067	8/16/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	10	528	
067	8/17/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	0	110	
067	8/18/18 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.33	0.33	145	1260	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
067	8/19/18 6:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.34	10	601	
067	9/10/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.76	0.76	0.76	70	41	
067	9/11/18 10:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.53	1.29	1.29	20	243	
067	9/12/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.26	0.79	1.55	119	573	
067	9/13/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.44	0.7	1.23	74	350	
067	9/14/18 8:06 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.44	0.7	0	183	
067	9/26/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.28	1.52	1.52	134	161	
067	9/27/18 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.33	1.57	120	906	
067	9/28/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.4	0.68	0	292	
067	9/29/18 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.4	0	109	
067	9/30/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35	10	110	
067	10/23/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.41	0.41	0.44	0	0	
067	10/24/18 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.45	0.45	10	95	
067	11/4/18 8:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.39	1.75	450	2060	
067	11/5/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.36	1.75	179	839	
067	11/6/18 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.78	1.14	1.14	63	74	
067	11/7/18 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.78	1.14	110	345	
067	11/8/18 9:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.78	52	235	
059	4/25/18 8:19 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.72	0.72	0.72	0	0	
059	4/26/18 9:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.21	0.93	0.93	30	171	
059	4/27/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.54	0.75	1.47	20	187	
059	4/30/18 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.25	0.25	0	0	
059	5/3/18 8:33 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.09	0.09	0.09	0	20	
059	5/4/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.09	0.09	0	31	
059	5/16/18 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1	1	350	1920	
059	5/17/18 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1	41	435	
059	5/18/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	41	2250	
059	5/21/18 8:27 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.28	10	31	
059	6/5/18 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.34	0.96	0.96	95	145	
059	6/6/18 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.34	0.96	10	169	
059	6/7/18 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.34	71	158	
059	6/8/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	109	
059	7/9/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
059	7/10/18 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
059	7/11/18 8:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.19	0.19	0.19	0	20	
059	7/17/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	2.68	2.68	2.69	0	10	
059	7/30/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
059	7/31/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	20	
059	8/15/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.3	52	613	
059	8/16/18 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	0	563	
059	8/17/18 8:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	0	166	
059	9/12/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.26	0.79	1.55	265	3260	
176	4/24/18 7:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	0	
176	4/25/18 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.72	0.72	0.72	0	10	
176	4/26/18 9:23 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.21	0.93	0.93	435	1610	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
176	4/27/18 8:22 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.54	0.75	1.47	173	627	
176	4/28/18 6:11 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.54	0.75	41	158	
176	4/29/18 5:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.05	0.59	41	86	
176	4/30/18 8:33 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.25	0.25	31	20	
176	5/3/18 8:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.09	0.09	0.09	0	31	
176	5/4/18 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.09	0.09	10	10	
176	5/16/18 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1	1	4110	24200	
176	5/17/18 8:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1	1020	15500	
176	5/18/18 8:54 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	41	880	
176	5/19/18 5:42 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.2	0.2	31	161	
176	5/20/18 6:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.08	0.28	0.28	52	63	
176	5/21/18 8:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.08	0.28	61	74	
176	6/5/18 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.34	0.96	0.96	1300	2380	
176	6/6/18 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.34	0.96	2140	7700	
176	6/7/18 8:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.34	185	538	
176	6/8/18 8:21 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	31	408	
176	6/9/18 6:41 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	41	20	
176	6/10/18 6:10 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	0	
176	7/6/18 6:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.35	0.35	0.35	31	31	
176	7/7/18 6:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.35	0.35	20	41	
176	7/8/18 6:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.35	41	275	
176	7/9/18 8:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	20	132	
176	7/10/18 8:16 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	74	20	
176	7/11/18 8:12 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.19	0.19	0.19	20	20	
176	7/17/18 8:03 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	2.68	2.68	2.69	10	41	
176	7/27/18 6:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.6	0.74	410	4110	
176	7/28/18 6:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.6	31	249	
176	7/29/18 7:06 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	85	
176	7/30/18 8:17 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	20	20	
176	7/31/18 8:07 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	41	
176	8/13/18 7:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.29	1.67	2.06	3650	5790	
176	8/14/18 10:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.3	1.68	84	3080	
176	8/15/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	0.3	364	3650	
176	8/16/18 8:57 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.01	41	609	
176	8/17/18 8:05 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.2	0.2	10	120	
176	8/18/18 6:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.13	0.33	0.33	119	368	
176	8/19/18 6:10 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.14	0.34	52	86	
176	9/10/18 7:49 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.76	0.76	0.76	20	20	
176	9/11/18 10:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.53	1.29	1.29	1060	10500	
176	9/12/18 8:44 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.26	0.79	1.55	1660	10500	
176	9/13/18 8:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.44	0.7	1.23	301	1730	
176	9/14/18 10:19 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.44	0.7	41	384	
176	9/26/18 10:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.28	1.52	1.52	2480	7700	
176	9/27/18 7:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.33	1.57	327	3870	
176	9/28/18 7:59 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.35	0.4	0.68	41	457	

2018 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
176	9/29/18 7:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.35	0.4	20	464	
176	9/30/18 6:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.35	10	158	
176	10/23/18 10:17 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.41	0.41	0.44	20	10	
176	10/24/18 10:36 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.04	0.45	0.45	85	240	
176	11/4/18 7:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1.39	1.75	2050	2760	
176	11/5/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.36	0.36	1.75	253	556	
176	11/6/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.78	1.14	1.14	145	292	
176	11/7/18 8:08 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.78	1.14	2050	1410	
176	11/8/18 9:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.78	377	1280	
167	1/29/18 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	10	240	
167	2/13/18 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.69	10	327	
167	2/27/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.51	10	80.5	
167	3/16/18 7:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.04	0	63	
167	3/26/18 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	0.08	0	84	
167	4/12/18 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.06	0.06	0	10	
167	4/23/18 7:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
167	4/24/18 8:33 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
167	4/28/18 6:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.54	0.75	0	160	
167	4/29/18 5:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.59	10	52	
167	5/8/18 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.19	41	52	
167	5/19/18 5:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	10	158	
167	5/20/18 6:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.28	0.28	72	142	
167	5/22/18 7:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.11	20	31	
167	6/4/18 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.62	0.62	0.63	108	20	
167	6/9/18 6:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	31	
167	6/10/18 6:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	31	74	
167	6/19/18 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.14	41	30	
167	7/5/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	0	0	
167	7/6/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.35	0.35	10	20	
167	7/7/18 6:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.35	10	20	
167	7/8/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35	0	52	
167	7/16/18 6:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.32	0	0	
167	7/27/18 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.74	160	199	
167	7/28/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.6	74	132	
167	7/29/18 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	31	
167	8/1/18 7:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
167	8/13/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	1.67	2.06	595	2910	
167	8/14/18 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.3	1.68	250	388	
167	8/18/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.33	0.33	31	97	
167	8/19/18 6:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.34	160	2720	
167	8/20/18 7:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.14	62	122	
167	9/7/18 7:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	10	41	
167	9/10/18 8:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.76	0.76	0.76	20	10	
167	9/11/18 10:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.53	1.29	1.29	96	435	
167	9/13/18 8:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.44	0.7	1.23	41	368	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
167	9/14/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.44	0.7	20	145	
167	9/17/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	41	
167	9/26/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.28	1.52	1.52	187	216	
167	9/27/18 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.33	1.57	41	359	
167	9/28/18 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.4	0.68	20	246	
167	9/29/18 7:11 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.4	20	223	
167	9/30/18 6:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35	0	62	
167	10/2/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	0.35	0.35	0	30	
167	10/18/18 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.03	0	0	
167	10/23/18 7:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.41	0.41	0.44	0	41	
167	10/24/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.45	0.45	0	20	
167	11/2/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.37	0.37	41	305	
167	11/4/18 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.39	1.75	443	1520	
167	11/5/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.36	1.75	158	669	
167	11/6/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.78	1.14	1.14	52	253	
167	11/7/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.78	1.14	63	160	
167	11/8/18 9:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.78	41	171	
167	11/15/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	0.46	1.56	173	419	
167	11/27/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	1.33	2.11	185	727	
052	4/24/18 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
052	4/25/18 9:23 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.72	0.72	0.72	0		0
052	4/26/18 9:00 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.21	0.93	0.93	0		35
052	4/26/18 9:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.93	0.93	74		127
052	4/27/18 7:58 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.54	0.75	1.47	0		27.3
052	4/27/18 7:58 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4	0.54	0.75	1.47	0		10
052	4/30/18 8:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.5	0.2	0.25	0.25	0		5
052	4/30/18 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.25	0.25	10		0
052	5/3/18 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.09	0.09	0.09	0		0
052	5/4/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.09	0.09	10		5
052	5/16/18 8:42 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.2	0	1	1	504		105
052	5/16/18 8:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1	1	448		280
052	5/17/18 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1	134		645
052	5/18/18 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	30		891
052	5/21/18 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.28	0		54.5
052	6/5/18 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.34	0.96	0.96	1020		5100
052	6/5/18 8:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0.34	0.96	0.96	148		270
052	6/6/18 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.34	0.96	63		360
052	6/6/18 8:21 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.8	0	0.34	0.96	20		20
052	6/7/18 8:25 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.4	0	0	0.34	20		20
052	6/7/18 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.34	31		63.6
052	6/8/18 8:05 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.6	0	0	0	31		5
052	6/8/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20		9.09
052	7/9/18 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	74		380
052	7/9/18 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.3	0	0	0	20		20
052	7/10/18 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10		109

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
052	7/10/18 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.7	0	0	0	10		20
052	7/11/18 7:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	0		18.2
052	7/11/18 7:56 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.4	0.19	0.19	0.19	0		10
052	7/17/18 7:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	2.68	2.68	2.69	20		90.9
052	7/25/18 1:35 PM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.14	0.14	0.17	161		490
052	7/25/18 1:35 PM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.4	0.14	0.14	0.17	10		45
052	7/27/18 7:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.74	121		370
052	7/30/18 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	41		18.2
052	7/31/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	41		300
052	8/13/18 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.29	1.67	2.06	1470		5200
052	8/14/18 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.3	1.68	311		4600
052	8/15/18 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	0.3	323		918
052	8/16/18 9:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	5250		4800
052	8/17/18 7:51 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.2	0.2	0.2	52		95
052	8/17/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.2	0.2	275		164
052	9/10/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.76	0.76	0.76	3080		195000
052	9/11/18 10:15 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.53	1.29	1.29	171		856
052	9/12/18 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.26	0.79	1.55	1450		70000
052	9/13/18 8:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.44	0.7	1.23	24200		620000
052	9/14/18 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.44	0.7	63		2300
052	9/26/18 8:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.28	1.52	1.52	243		838
052	9/27/18 7:53 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.33	1.57	17300		141000
052	9/28/18 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.35	0.4	0.68	10		450
052	10/23/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.41	0.41	0.44	86		1450
052	10/24/18 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.45	0.45	122		802
069	4/24/18 7:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20		100
069	4/25/18 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.72	0.72	0.72	0		90.9
069	4/26/18 8:49 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.93	0.93	110		118
069	4/26/18 8:49 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0.21	0.93	0.93	10		25
069	4/27/18 7:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.54	0.75	1.47	0		18.2
069	4/27/18 7:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.5	0.54	0.75	1.47	10		0
069	4/30/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.25	0.25	10		9.09
069	5/3/18 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.09	0.09	0.09	0		0
069	5/4/18 7:59 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.09	0.09	96		65
069	5/16/18 8:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1	1	609		16300
069	5/17/18 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1	158		627
069	5/18/18 8:22 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10		127
069	5/21/18 8:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.28	450		2100
069	6/5/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.34	0.96	0.96	2910		4700
069	6/6/18 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.34	0.96	1050		773
069	6/7/18 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.34	0		9.09
069	6/8/18 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		54.5
069	7/9/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
069	7/10/18 7:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.7	0	0	0	0		5
069	7/10/18 7:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
069	7/11/18 7:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	0		45.5
069	7/17/18 7:38 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	2.68	2.68	2.68	0		15
069	7/17/18 7:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	2.68	2.68	2.69	0		9.09
069	7/30/18 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		45.5
069	7/31/18 7:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10		81.8
069	8/13/18 7:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.29	1.67	2.06	1080		5100
069	8/14/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.3	1.68	563		3600
069	8/15/18 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	0.3	323		2800
069	8/16/18 9:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	52		200
069	8/17/18 7:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.2	0.2	146		225
069	9/10/18 7:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.76	0.76	0.76	20		250
069	9/11/18 7:53 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.53	1.29	1.29	1780		71000
069	9/12/18 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.26	0.79	1.55	479		2700
069	9/12/18 8:20 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.26	0.79	1.55	63		215
069	9/13/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.44	0.7	1.23	5480		26000
069	9/14/18 7:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.44	0.7	556		4900
069	9/26/18 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.28	1.52	1.52	426		730
069	9/27/18 7:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.33	1.57	565		4700
069	9/28/18 7:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.35	0.4	0.68	291		430
069	10/22/18 7:34 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	0.03	0.03	0		25
069	10/22/18 7:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.03	0.03	10		54.5
069	10/23/18 7:39 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.41	0.41	0.44	52		827
069	10/24/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.45	0.45	3650		3100
137	1/16/18 10:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.2	0	0	0	0		5
137	1/16/18 10:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	240		25
137	1/31/18 10:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.15	0.15	10		5
137	1/31/18 10:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	15	0	0.15	0.15	20		0
137	2/6/18 10:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.36	0.65	10		55
137	2/6/18 10:43 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.7	0	0.36	0.65	0		5
137	2/20/18 10:37 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.07	0.42	0		10
137	2/20/18 10:37 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.3	0.01	0.07	0.42	0		10
137	3/9/18 10:31 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.5	0	0.71	1.26	0		0
137	3/9/18 10:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.71	1.26	0		0
137	3/19/18 10:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
137	3/19/18 10:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.4	0	0	0	0		5
137	4/3/18 9:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.47	0.58	0.58	0		10
137	4/3/18 9:56 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11	0.47	0.58	0.58	10		0
137	5/2/18 9:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.2	0		0
137	5/2/18 9:41 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	0	0	0.2	10		5
137	5/14/18 9:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.6	0	0	0.21	0		0
137	5/14/18 9:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.21	0		15
137	6/11/18 9:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
137	6/11/18 9:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.5	0	0	0	0		0
137	6/18/18 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.13	0.13	0		5
137	6/18/18 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	9.6	0.13	0.13	0.13	0		0

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
137	7/12/18 9:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.19	0.19	0		5
137	7/12/18 9:38 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	14.8	0	0.19	0.19	0		5
137	7/23/18 9:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.03	0.2	0.2	20		25
137	7/23/18 9:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.6	0.03	0.2	0.2	0		0
137	8/2/18 9:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		20
137	8/2/18 9:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0	0	0	0		0
137	8/23/18 9:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.5	0.5	122		35
137	8/23/18 9:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13	0	0.5	0.5	30		5
137	9/6/18 9:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.4	0.03	0.03	0.03	0		0
137	9/6/18 9:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.03	0.03	0.03	0		5
137	9/25/18 9:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.24	1.24	1.24	0		40
137	9/25/18 9:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	1.24	1.24	1.24	0		0
137	10/4/18 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.21	0.5	63		510
137	10/4/18 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0	0.21	0.5	0		5
137	10/25/18 9:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.45	0		15
137	10/25/18 9:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.7	0	0.04	0.45	0		0
137	11/9/18 10:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.1	1.1	1.1	20		95
137	11/9/18 10:33 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.9	1.1	1.1	1.1	0		0
137	11/28/18 10:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.46	1.33	218		370
137	11/28/18 10:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.9	0	0.46	1.33	10		10
137	12/6/18 10:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		20
137	12/6/18 10:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.1	0	0	0	0		0
137	12/19/18 10:44 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.7	0	0.02	0.06	20		40
137	12/19/18 10:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.02	0.06	0		15

Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)
012	1/29/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	6.34	58.2	93.1		0.514	1.23	2.46					2.15	5.01
012	2/13/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	4.39	60.5	89.2		1.02	2.16	1.81					1.5	2.37
012	2/27/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	2.19	47.6	66.9		0.498	5.22	4.68					1.28	3.56
012	3/16/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.46	47.8	72.7		0.228	20.7	1.99					1.87	2.31
012	3/26/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	0.822	51.6	101		0.221	5.83	2.65					0.947	1.67
012	4/12/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.13	50.4	79.5		0.194	11.3	4.44					0.845	2.27
012	4/23/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.59	31.8	69.4		0.25	11.2	4.03					1	2.81
012	5/8/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	3.76	26.3	69.5		0.4665	9.555	6.075					1.615	3.66
012	5/22/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	7.185	35.2	82.9		0.795	4.975	4.72					2.005	2.405
012	6/4/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	5.73	33.8	78		0.685	7.57	5.13					2.15	1.16
012	6/19/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.76	24.3	57.3		0.644	3.52	3.57					2.77	2.84
012	7/5/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.6	9.71	42.7		0.616	10.1	7.76					1.6	1.86
012	7/16/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	2.06	16.9	51.3		0.305	2.21	3.69					1.24	0.82
012	8/1/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	0.606	15.2	46.7		0.455	2.47	3.3					1.26	1.91
012	8/20/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	0.926	30.7	65.9		0.807	1.11	2.28					2.11	4.19
012	9/7/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.43	20.9	56.2		0.757	0.94	1.83					1.3	1.36
012	9/17/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	1.86	37.9	89		0.423	2.43	4.66					1.42	2.82
012	10/2/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	3.27	18.3	65.6		0.661	0.95	3.08					2.05	4.59
012	10/18/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	2.02	24.9	67.6		0.693	0.32	1.21					1.99	1
012	11/2/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	2.24	33.7	73.5		0.793	1.53	2.52					2.04	1.97
012	11/15/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	2.04	29.7	68.6		0.73	0.53	1.62					1.44	0.43
012	11/27/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	3.38	44.4	75.7		0.359	0.58	1.5					1.67	3.61
012	12/10/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	3.17	45.45	67.6		0.246	0.84	1.355					0.8135	0.94
012	12/26/18 12:00 AM	S	CHARLES RIVER	UPPER BASIN	3.8	51.4	79.3		1.16	2.71	2.12					1.85	0.43
166	1/29/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	8.89	63.3	102		0.779	0.95	1.64					2.02	3.15
166	2/13/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	7.38	64.65	98.25		1.075	1.32	1.83					1.715	3.935
166	2/27/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	4.88	58.2	68.6		0.735	4.4	3.04					1.27	2.88
166	3/16/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	3.36	49.2	78.6		0.369	1.78	1.61					2.12	2.72
166	3/26/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	2.17	53.2	105		0.302	3.4	1.35					1.15	2.03
166	4/12/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	1.34	59.3	86.5		0.25	7.23	3.04					0.801	1.11
166	4/23/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	2.05	45.3	81.8		0.218	10.8	3.87					0.962	2.56
166	5/8/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	8.67	34.1	82.6		0.281	17.1	8.27					1.52	3.13
166	5/22/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	14.8	37.8	107		0.486	23.3	7.23					2.59	2.39
166	6/4/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	13.7	43.3	105		0.453	7.16	8.66					2.21	1.19
166	6/19/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	14.6	41.6	82.05		0.6295	7.87	7.09					2.175	2.82
166	7/5/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	0.0421	21.4	62.2		0.259	22.4	5.72					1.26	2.61
166	7/16/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	11	2.1	48.7		0.131	6.31	2.73					1.24	2.53
166	8/1/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	1.35	6.18	40.6		0.118	15.1	11.2					0.982	3.65
166	8/20/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	2.76	15.5	49.9		0.2	15.9	7.93					1.44	4.25
166	9/7/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	1.1	7.51	53.8		0.179	21.2	8.09					1.19	4.15
166	9/17/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	0.55	8.66	73		0.257	49.3	10.4					1.59	1.72
166	10/2/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	7.5	21.95	73.4		0.9615	2.03	2.395					2.32	1.99
166	10/18/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	6.53	26.4	70.6		1.11	1.96	2.2					3.01	0.94
166	11/2/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	4.3	44	78.9		1.24	1.89	1.88					2.2	1.01
166	11/15/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	1.67	30.9	181		1.05	0.84	1.76					2.06	0.65
166	11/27/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	6.19	52.7	85.2		0.55	0.84	1.94					1.96	1.61
166	12/10/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	4.68	48.3	65.8		0.367	0.71	1.01					0.942	1.82
166	12/26/18 12:00 AM	S	CHARLES RIVER	LOWER BASIN	6.06	54.8	91.1		1.15	3.1	2.16					1.73	2.14
083	1/18/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	29.6	59.8	103		0.689	4.1	3.18					1.6	3.53
083	1/29/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	25.2	69.5	125		0.662	4.82	3.33					1.53	2.35
083	2/13/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	32.2	68.6	121		0.861	4.97	2.36					1.52	2.81
083	2/27/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	25.6	69	106		0.794	9	3.28					1.36	2
083	3/16/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	44.3	67.3	141		0.561	6.11	1.8					2.49	3.04
083	3/26/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	40.5	70.9	172		0.561	8.3	1.89					1.59	2.32
083	4/12/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	31.4	78.6	135		0.324	9.5	2.62					0.909	2.96
083	4/23/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	20.5	73.95	128		0.2435	26.4	5.29					0.942	3.39
083	5/8/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	1.49	71.2	107		0.0678	16.3	3.68					0.878	3.17
083	5/22/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	4.72	63.6	104		0.0329	7.25	3.22					0.76	2.57
083	6/4/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	6.87	69.8	123		0.385	11.3	5.08					3.55	12.1
083	6/19/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	6.09	56.7	88.8		0.194	3.41	2.25					1.67	1.75
083	7/5/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	9.5	36.2	79.2		0.143	7.47	2.89					1.05	2.2
083	7/16/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	6.86	32.6	71.2		0.148	2.36	2.84					1.14	1.91
083	8/1/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	3.42	33.2	61.8		0.241	2.24	2.64					0.878	2.09
083	8/20/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	1.42	32.1	51.8		0.119	2.12	2.73					0.712	2.58

2018 MWRA Central Lab Analyses - Nutrients

Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)
083	9/7/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	2.67	26.4	49.6		0.264	1.94	3.81					0.594	1.64
083	9/17/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	1.77	27.5	61.5		0.0236	5.59	3.49					0.679	1.74
083	10/2/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	1.8	27.7	61.3		0.0852	12.8	4.24					0.868	4.4
083	10/18/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	1.18	34.5	60.8		0.0946	5.89	3.48					0.941	1.58
083	11/2/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	13.9	50.2	98.5		2.44	13.5	4.45					4.41	2.12
083	11/15/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	13.8	49.9	90		0.643	7.18	3.03					1.55	4.22
083	11/27/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	12.9	57.6	97.3		0.492	1.98	1.39					1.61	2.02
083	12/10/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	15.8	63.9	110		0.371	3.37	2.45					1.02	2.43
066	1/18/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	33.3	66.3	115		0.821	5.45	4.17					1.89	4.18
066	1/29/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	31.15	64.85	123.5		0.578	5.035	3.5					1.63	4.085
066	2/13/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	31.3	72.7	123		0.855	5.79	2.22					1.57	1.24
066	2/27/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	28.4	72.3	114		0.979	8.81	3.56					1.43	3.16
066	3/16/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	44	68.3	136		0.61	6.395	1.78					2.655	3.33
066	3/26/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	40.4	75.5	177		0.548	10.8	2.82					1.57	2.95
066	4/12/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	32.15	80.85	138.5		0.347	12.75	4.34					1.017	0.59
066	4/23/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	23.2	76.4	123		0.263	15.5	4.51					1.07	5.26
066	5/8/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	6.29	64.8	112		0.132	24.9	6.4					1.2	6.39
066	5/22/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	8.62	57.8	106		0.0998	10.2	4.25					0.996	3.01
066	6/4/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	10.8	63.8	107		0.01	13.4	6.77					1.44	2.25
066	6/19/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	15.7	49.3	91.8		0.222	4.05	3.51					2.13	1.78
066	7/5/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	21.7	30.5	82.8		0.424	7.44	3.54					1.65	2.14
066	7/16/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	11.25	25.4	65.45		0.3695	4.485	2.915					1.455	1.65
066	8/1/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	10.37	30.05	63.3		0.5175	3.205	3.085					1.35	2.47
066	8/20/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	2.48	30.6	53.5		0.209	2.06	2.73					0.97	2.81
066	9/7/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	4.405	31.35	60.95		0.406	4.8	4.38					1.075	2.615
066	9/17/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	4.77	28.75	67.4		0.1073	9.715	6.71					1.005	2.47
066	10/2/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	7.82	26.5	67.8		0.13	10.9	4.61					1.22	3.84
066	10/18/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	5.705	37.1	68		0.1755	9.79	3.3					1.073	1.795
066	11/2/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	11.45	49.6	85.15		0.5415	5.99	3.29					1.53	2.785
066	11/15/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	17.55	54.7	98.1		0.759	7.485	3.465					1.33	1.465
066	11/27/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	13.45	57.35	99.3		0.466	2.455	4.695					2.875	14.3
066	12/10/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	18.4	67.8	116		0.452	2.48	1.79					1.04	0.93
066	12/26/18 12:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	26.05	75.4	129.5		1.52	4.13	2.675					1.94	2.85
167	1/29/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	26.2	62.5	116		0.722	2.77	2.31					1.88	4.76
167	2/13/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	27.8	62.4	118		0.821	6.27	3.28					1.61	5.45
167	2/27/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	22.2	62.95	101.8		0.7685	8.93	4.16					1.395	4.105
167	3/16/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	32.4	69.9	123		0.541	4.6	2.39					2.59	4.76
167	3/26/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	29.1	72.8	170		0.511	8.21	2.42					1.76	3.08
167	4/12/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	20.6	76.7	112		0.291	9.66	4.12					1.23	5.29
167	4/23/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	12.4	68.8	117		0.255	23.1	4.76					1.17	6.16
167	5/8/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	2.04	51	94.4		0.0362	67.7	16.2					1.66	10.7
167	5/22/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	4.55	41	93.1		0.0255	28.2	14.8					1.61	10.2
167	6/4/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	10.3	24.6	87.6		0.01	27.7	12					2.51	11.6
167	6/19/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	5.09	5.99	57.6		0.01	28.1	20.6					2.84	7.3
167	7/5/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	2.75	4.04	48.3		0.527	25.2	6.71					2.18	3.41
167	7/16/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.028	0.025	54.1		0.485	67.4	11.8					3.73	2.87
167	8/1/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.638	50.8		0.2	61.8	11.2					4.1	13.8
167	8/20/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.028	0.0578	43.7		0.164	49.4	9.96					3.02	6.55
167	9/7/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.588	0.266	46.2		0.14	38.2	17.7					2.44	12.3
167	9/17/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.59	0.248	51.4		0.427	63.1	13.3					2.04	2.12
167	10/2/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	3.79	18.3	58.1		0.135	23.4	8.91					1.62	6.42
167	10/18/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	7.54	28.5	67		0.135	14	6.28					1.68	4.22
167	11/2/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	8.16	31.4	68.3		0.387	6.95	3.12					1.56	4.17
167	11/15/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	10.5	48.7	86		0.727	4.12	3.83					1.6	3.12
167	11/27/18 12:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	18.4	55.1	103		0.465	3.68	4.43					2.24	7.15
137	1/16/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.35	24.6	45.43	0.519	1.04	0.73	0.93	48.8	2.53	42.9	1.33	1.849	4.31
137	1/31/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.29	12	29.76	0.278	0.878	0.89	1	23.3	2.36	27.4	1.11	1.388	3.98
137	2/6/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.32	15.7	34.16	0.31	0.827	0.77	0.86	24	2.56	31.6	1.01	1.32	3.93
137	2/20/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	7.99	26.6	54.52	0.328	0.888	1.13	1.04	24.1	2.22	52.3	0.973	1.301	2.73
137	3/9/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.75	19.8	36.84	0.382	0.977	0.73	0.8	34.5	3.04	33.8	0.543	0.925	4.42
137	3/19/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.13	15.4	36.01	0.329	0.816	0.56	0.78	24.7	2.41	33.6	0.966	1.295	4.07
137	4/3/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.39	28.9	71.25	0.375	0.644	4.22	0.82	34.5	3.75	67.5	1.04	1.415	4.19
137	5/2/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.63	22.9	45.72	0.55	0.291	10.5	2.77	72.3	9.02	36.7	0.313	0.863	3.49
137	5/14/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.71	15	44.55	0.515	0.252	7.71	3.68	55	7.55	37	0.568	1.083	4.51

2018 MWRA Central Lab Analyses - Nutrients

Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)
137	6/11/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.276	0.367	24	0.949	0.0726	15.5	3.67	90.2	11.5	12.5	0.18	1.129	4.52
137	6/18/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.028	0.14	15.44	0.452	0.01	11	1.07	46.6	6.15	9.29	0.11	0.562	2.48
137	7/12/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.028	0.28	21.46	0.698	0.254	7.8	2.2	59.6	7.96	13.5	0.386	1.084	3.08
137	7/23/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.028	0.24	34	1.34	0.209	19.6	5.7	88.9	14	20	0.579	1.919	3.71
137	8/2/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.028	0.233	27.3	1.02	0.638	11.6	2.85	89	10.4	16.9	0.776	1.796	3.77
137	8/23/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.328	0.548	27.5	0.757	0.969	11.9	3.46	73.8	12.1	15.4	1.13	1.887	2.25
137	9/6/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.5315	0.3465	22.905	0.669	0.444	11.15	4.705	56.85	8.255	14.65	1.12	1.789	2.11
137	9/25/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	9.86	11.6	52.94	0.533	1.28	10.3	3.8	35.4	5.24	47.7	1.91	2.443	1.98
137	10/4/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	9.47	13.4	45.05	0.357	0.994	4.24	1.87	32.9	3.95	41.1	1.4	1.757	1.9
137	10/25/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	6.09	7.44	27.22	0.26	1.3	2.02	1.01	23.7	2.82	24.4	1.22	1.48	2.27
137	11/9/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.24	23.4	54.77	0.427	1.15	2.18	1.84	40.2	3.87	50.9	1.31	1.737	2.58
137	11/28/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	8.24	29.3	61.86	0.707	0.74	0.56	0.97	66.3	5.16	56.7	1.02	1.727	6.23
137	12/6/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.51	15.9	40.18	0.289	0.728	0.91	0.91	22	2.18	38	1.08	1.369	2.48
137	12/19/18 12:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.33	12.9	30.79	0.253	1.1	0.72	0.9	16.6	1.49	29.3	1.02	1.273	2.05

APPENDIX III

2018 raw data for physical profile results.

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2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
012	1/29/18 11:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	1.39	0.25	13.27	94.5	0.518	22	7.34	
012	2/13/18 10:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.69	2.12	0.37	13.83	100.6	0.759		7.4	
012	2/27/18 11:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.51	7.37	0.31	12.44	103.6	0.634	3.5	7.9	
012	3/16/18 10:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.04	3.17	0.36	13.53	101.2	0.741	3.4		
012	3/26/18 10:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.07	0.08	6.26	0.33	12.45	100.9	0.683	3	7.69	
012	4/12/18 10:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.06	0.06	8.78	0.31	13.08	112.8	0.633	0.9	7.55	
012	4/23/18 10:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.35	0.527	11.56	108.3	0.26		7.52	
012	5/8/18 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.19	19.14	0.28	10.19	110.3	0.576		7.47	
012	5/22/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.11	18.97	0.31	8.96	96.7	0.643		7.47	
012	6/4/18 10:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.62	0.62	0.63	18.73	0.33	8.23	88.4	0.67		7.35	
012	6/19/18 9:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.14	0.14	24.3	0.36	8.45	101.2	0.735		7.75	
012	7/5/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	28.22	0.36	7.6	97.7	0.74		7.79	
012	7/16/18 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.32	24.52	0.39	6.63	79.7	0.798		7.38	
012	8/1/18 10:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.99	0.35	8.56	105.7	0.723		7.92	
012	8/20/18 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.14	24.63	0.28	8.59	103.3	0.585		7.88	
012	8/20/18 9:27 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.14	24.63	0.28	8.05	96.9	0.586		7.75	
012	9/7/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	24.84	0.33	7.48	90.4	0.687		7.68	
012	9/7/18 10:08 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	24.86	0.33	6.78	82	0.688		7.58	
012	9/17/18 9:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.91	0.29	8.72	99.7	0.593	6.4	7.43	
012	9/17/18 9:49 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.89	0.29	8.59	98.2	0.593	6.2	7.36	
012	10/2/18 9:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.29	0.35	0.35								
012	10/18/18 10:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.03	11.68	0.22	11.85	109.3	0.463	1.1	7.54	
012	11/2/18 10:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.37	0.37	9.97	0.22	10.63	94.2	0.456	4.1	7.4	
012	11/15/18 11:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	0.46	1.56	4.66	0.18	12.81	99.6	0.379	5.6	7.37	
012	11/27/18 10:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	1.33	2.11	3.99	0.2			0.427		7.4	
012	12/10/18 10:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	1.19	0.22			0.465		7.97	
012	12/10/18 10:50 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	1.16	0.22			0.465		7.65	
012	12/26/18 11:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	2.29	0.21	13.19	96.3	0.43		7.42	
001	3/2/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31								
001	3/3/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3								
001	3/4/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3								
001	3/5/18 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	4.71	0.32	12.76	99.3	0.655	4.4	7.08	
001	3/6/18 10:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	4.47	0.28	12.97	100.4	0.569	5		
001	3/7/18 10:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	4.13	0.26	12.83	98.4	0.534	4.3	7.09	
001	4/4/18 10:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	8.21	0.37	11.39	96.9	0.746	8.4	7.15	
001	4/5/18 9:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	7	0.37	12.37	102.1	0.745	3.5	7.35	
001	4/6/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	6.78	0.36	12.33	101.2	0.737	1.2	7	
001	4/9/18 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01								
001	4/10/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
001	4/11/18 7:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
001	4/13/18 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	9.2	0.34	10.93	95.2	0.694	1.5	7.25	
001	4/17/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	8.04	0.26	11.45	96.9	0.542	2.5	6.89	
001	4/18/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	7.96	0.29	11.96	101.1	0.589	13.8	7.13	
001	4/19/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	8.4	0.3	11.57	98.9	0.606		7.19	
001	4/20/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	8.04	0.28	12.34	104.5	0.574	8.1	7.12	
001	4/21/18 7:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23								
001	5/23/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.81	0.33	7.65	82.3	0.684		7.21	
001	5/24/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	19.42	0.33	7.54	82.2	0.677	4.6	7.42	
001	5/25/18 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	20.06	0.32	7.77	85.7	0.659	9.4	7.23	0.5
001	5/25/18 9:29 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	19.96	0.32	7.77	85.5	0.659	7.4	7.23	
001	5/29/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	18.8	0.34	8.18	88	0.701	5	7.36	
001	5/30/18 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	19.87	0.34	7.13	78.4	0.706	7.8	7.35	
001	5/31/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.39	0.35	7.6	84.4	0.714		7.39	
001	6/25/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	21.93	0.27	7.91	90.4	0.551	8.6	7.77	0.5
001	6/26/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	21.65	0.31	7.34	83.6	0.646	63.6	7.51	
001	6/27/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.54	0.38	7.65	88.6	0.779	4.8	7.62	
001	6/28/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	21.63	0.34	7.78	88.5	0.695		7.47	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
001	6/29/18 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.74	0.35	8.08	93.9	0.711	5.4	7.75	
001	6/30/18 7:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16								
001	7/1/18 7:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
001	7/2/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.08	0.36	7.43	90.2	0.747	5.3	7.55	
001	7/3/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	26.95	0.36	6.92	86.9	0.749	25.4	7.42	
001	7/18/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	25.06	0.31	7.66	92.9	0.643	4.9	7.78	
001	7/19/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	24.01	0.36	6.71	79.8	0.735		7.5	
001	7/20/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	24.29	0.32	7.32	87.6	0.66	3.7	7.7	
001	7/21/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
001	7/22/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17								
001	8/6/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.32	0.35	7.12	90	0.724	3.5	7.98	
001	8/7/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.81	0.34	7.5	95.6	0.713	2.7	8.16	
001	8/8/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	27.99	0.34	7.09	90.7	0.71	2.7	8.06	
001	8/9/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04								
001	8/27/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	23.84	0.3	7.73	91.7	0.615	3.6	8.11	
001	8/28/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.66	0.3	6.41	77.2	0.622	3.2	7.08	
001	8/29/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.18	0.31	6.45	79.9	0.637	3.4	7.95	
001	8/30/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.12	0.31	6.89	86.9	0.647	58.4	8.04	
001	8/31/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.14	0.32	6.07	73.8	0.659	3.4	7.42	
001	9/18/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	22.32	0.29	7.51	86.6	0.605		7.33	
001	9/19/18 10:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.64	0.27	8.33	94.8	0.561	5.7	7.45	1
001	9/19/18 10:06 AM	B	CHARLES RIVER	UPPER BASIN	0	1.15	1.15	1.15	21.66	0.27	7.97	90.7	0.561	13	7.33	
001	9/20/18 9:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	20.53	0.27	8.09	90.1	0.561	11.1	7.19	1.1
001	9/20/18 9:47 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	1.15	20.53	0.27	8.01	89.1	0.562		7.22	
001	9/21/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	19.79	0.27	8.4	92.2	0.552	3.4	7.37	
001	9/22/18 6:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03								
001	9/23/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03								
001	10/9/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.62	0.2	9.25	95.1	0.421	4.8	7.26	
001	10/10/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.63	0.21	9.29	97.5	0.43	5.5	7.15	
001	10/11/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	18.67	0.21	8.96	96	0.444	4.8	7.22	
001	10/12/18 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	17.7	0.22	8.64	90.8	0.453	4.5	7.2	
001	10/13/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82								
001	10/14/18 8:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22								
001	10/15/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	13.57	0.23	9.95	95.8	0.48		7.21	
001	10/16/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	12.54	0.24	10.13	95.3	0.498	5.8	7.34	
001	10/26/18 10:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	8.16	0.26	11.43	97.1	0.538	6	7.47	0.9
001	10/26/18 10:13 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.04	8.12	0.26	11.66	98.9	0.538	5.3	7.42	
001	10/27/18 7:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17								
001	10/28/18 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2								
001	10/29/18 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	9.4	0.19	10.14	88.6	0.4		7.58	0.3
001	10/30/18 10:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	9.32	0.23	10.8	94.3	0.466	6.4	7.31	
001	10/31/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.4	0.24	10.35	88.4	0.492	6.7	7.44	
001	11/10/18 7:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55								
001	11/11/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55								
001	11/12/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45								
001	11/13/18 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1								
001	11/14/18 9:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1								
144	4/9/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	6.22	0.32	11.66	94.4	0.661	1.1	7.53	1.6
144	4/9/18 9:05 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.01	6.21	0.33	11.7	94.7	0.668	1.9	7.51	
144	4/10/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.13	0.32	11.66	96.6	0.653	0.6	7.61	1.3
144	4/10/18 9:10 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.24	0.36	11.54	95.8	0.733	0.8	7.55	
144	4/11/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	6.87	0.32	11.93	98.1	0.659	3.2	7.54	1.2
144	4/11/18 9:25 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	6.92	0.33	11.68	96.3	0.681	7.6	7.46	
144	5/23/18 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.79	0.33	7.51	80.8	0.677	4.8	7.17	1
144	5/23/18 8:54 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.14	0.34	7.52	79.8	0.69	8.4	7.18	
144	5/24/18 9:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	19.95	0.33	7.33	80.6	0.675	4.3	7.38	1
144	5/24/18 9:21 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.02	0.05	18.82	0.35	6.96	74.9	0.72	15.5	7.27	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
144	5/25/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	19.17	0.33	7.75	84	0.672	5.3	7.26	1.1
144	5/25/18 9:19 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.02	19.04	0.33	7.44	80.5	0.684	8.4	7.22	
144	5/29/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	18.86	0.34	7.72	83.1	0.687	3.8	7.38	0.9
144	5/29/18 8:52 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.08	18.36	0.34	7.56	80.6	0.692	6.8	7.32	
144	5/30/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	19.99	0.34	6.94	76.4	0.693	7.4	7.25	0.9
144	5/30/18 8:30 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	19.5	0.34	6.86	74.9	0.696	9.3	7.25	
144	5/31/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.91	0.34	7.24	81.2	0.702	6.3	7.35	1
144	5/31/18 8:46 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	20.31	0.35	6.79	75.3	0.719	9.8	7.28	
144	6/25/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	22.32	0.29	6.26	72.1	0.592	9.2	7.37	0.5
144	6/25/18 9:07 AM	B	CHARLES RIVER	UPPER BASIN		0.33	0.59	0.59	22.31	0.29	5.8	66.9	0.608	8.1	7.28	
144	6/26/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	22.27	0.27	7.47	86	0.567	6.9	7.51	0.7
144	6/26/18 9:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0.33	0.59	21.72	0.29	6.91	78.8	0.598	8.2	7.4	
144	6/27/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.29	0.33	8.38	96.6	0.675	5.5	7.59	1.1
144	6/27/18 9:07 AM	B	CHARLES RIVER	UPPER BASIN		0.09	0.09	0.42	22.1	0.34	7.94	91.1	0.688	6.4	7.47	
144	6/29/18 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.37	0.31	7.08	81.7	0.648	6.1	7.7	1.3
144	6/29/18 9:29 AM	B	CHARLES RIVER	UPPER BASIN		0	1.16	1.25	21.78	0.32	6.68	76.2	0.653	8.1	7.54	
144	7/2/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.55	0.36	7.74	96.5	0.74	5.4	7.57	1.2
144	7/2/18 8:50 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	26.32	0.36	7.1	88.2	0.744	6	7.47	
144	7/3/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	27.38	0.37	7.64	96.8	0.757	4.9	7.53	1.1
144	7/3/18 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	27.07	0.37	7.09	89.2	0.76	7.8	7.4	
144	7/18/18 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	24.78	0.26	6.91	83.4	0.535	6.3	7.77	0.9
144	7/18/18 8:53 AM	B	CHARLES RIVER	UPPER BASIN		0.06	2.74	2.74	24.62	0.26	6.21	74.7	0.54	7.3	7.6	
144	7/19/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	25.21	0.35	7.32	89.1	0.716		7.55	1.5
144	7/19/18 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	2.74	24.52	0.35	6.33	76	0.727		7.38	
144	7/20/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	25.13	0.34	7.96	96.7	0.699	4.4	7.73	1.5
144	7/20/18 8:36 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	25.01	0.34	7.31	88.7	0.701	5	7.58	
144	7/21/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
144	8/6/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.61	0.34	7.89	100.2	0.711	3.8	7.83	1.2
144	8/6/18 9:06 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.64	27.47	0.34	7.43	94.2	0.711	8.5	7.7	
144	8/7/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.99	0.35	8.28	106	0.724	3.2	8.15	
144	8/7/18 8:24 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	27.92	0.35	7.36	94.1	0.724	8.9	7.74	
144	8/8/18 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	28.54	0.34	7.85	101.4	0.71	8	8.2	
144	8/8/18 9:20 AM	B	CHARLES RIVER	UPPER BASIN		0.98	0.98	0.98	28.47	0.34	6.98	90.1	0.71	8	7.88	
144	8/27/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.07	0.3	7.62	90.8	0.614	4.2	8.05	1.2
144	8/27/18 9:16 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.95	0.3	7.1	84.4	0.614	6.3	7.84	
144	8/28/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.04	0.3	6.64	80.5	0.622	3.6	7.01	1.7
144	8/28/18 8:42 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.94	0.3	6.76	81.8	0.626	6.2	7.04	
144	8/29/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.45	0.31	8.38	104.3	0.635	3.7	8.19	
144	8/30/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.28	0.31	6.94	87.7	0.646	4.2	7.92	
144	8/30/18 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	27.1	0.31	6.64	83.6	0.647	6.2	7.8	
144	8/31/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.02	0.32	7.27	89.8	0.655	5.1	7.66	1.5
144	8/31/18 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	25.92	0.32	6.37	78.5	0.655	5.3	7.52	
144	9/19/18 9:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.58	0.27	8.23	93.5	0.561	7.4	7.47	1
144	9/19/18 9:58 AM	B	CHARLES RIVER	UPPER BASIN		0	1.15	1.15	21.56	0.28	7.4	84	0.579	11.2	7.32	
144	9/20/18 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	20.38	0.28	7.81	86.7	0.583	7.9	7.31	1.5
144	9/20/18 9:40 AM	B	CHARLES RIVER	UPPER BASIN		0	0	1.15	20.2	0.3	7.66	84.7	0.612	7.3	7.21	
144	9/21/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	19.85	0.26	8.3	91.2	0.537	4	7.38	1
144	9/21/18 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	19.62	0.27	8.06	88.1	0.561	9.2	7.26	
144	10/9/18 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.61	0.2	9.1	93.5	0.412	4.7	7.29	0.6
144	10/9/18 9:28 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.1	16.41	0.2	9.18	93.9	0.415	11.6	7.17	
144	10/10/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.56	0.2	9.29	97.3	0.418	5.8	7.07	0.8
144	10/10/18 8:50 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	17.34	0.2	9.07	94.6	0.423	8.5	7	
144	10/26/18 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	7.67	0.26	11.15	93.6	0.544	5.4	7.5	1
144	10/26/18 10:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	7.62	0.26	11.31	94.8	0.545	6.2	7.41	
144	10/29/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	9.05	0.24	10.17	88.2	0.493	6.3	7.51	0.6
144	10/29/18 9:39 AM	B	CHARLES RIVER	UPPER BASIN		0.52	0.55	1.72	9.02	0.24	10.25	88.8	0.491	20.7	7.39	
144	10/30/18 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	9.06	0.24	10.38	90.1	0.489	6.2	7.36	0.7

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
144	10/30/18 10:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0.52	0.55	9.04	0.24	10.54	91.4	0.491	17.1	7.29	
144	10/31/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.22	0.24	10.19	86.6	0.501	6.7	7.43	0.7
144	10/31/18 10:08 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.52	8.18	0.24	10.51	89.2	0.504	6.8	7.34	
002	3/2/18 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31								
002	3/3/18 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3								
002	3/4/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3								
002	3/5/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	4.67	0.82	12.54	97.9	1.638	10.5	6.81	
002	3/6/18 10:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	4.56	0.49	12.41	96.4	0.996	6		
002	3/7/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	4.11	0.25	12.62	96.7	0.524	8.3	7.12	
002	4/4/18 10:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	8	0.36	11.32	95.8	0.729	1.6	7.37	
002	4/5/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	6.51	0.35	12.21	99.6	0.71	3.4	7.4	
002	4/6/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	6.46	0.35	12.12	98.7	0.711	2.1	7.04	
002	4/9/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	6.14	0.33	11.6	93.7	0.668	1.1	7.54	1.6
002	4/9/18 8:57 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.01	6.11	0.33	11.62	93.8	0.669	0.5	7.43	
002	4/10/18 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.01	0.32	11.61	95.8	0.66	0.6	7.66	1.4
002	4/10/18 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	7	0.32	11.49	94.9	0.66	1.6	7.59	
002	4/11/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	6.93	0.32	11.8	97.3	0.662	3.2	7.54	1.3
002	4/11/18 9:19 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	6.82	0.32	11.74	96.5	0.663	9.3	7.45	
002	4/13/18 7:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	8.88	0.33	10.94	94.6	0.679	2	7.25	
002	4/17/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	7.76	0.27	12.33	103.7	0.562	10	6.94	
002	4/18/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	7.5	0.29	12.46	104.1	0.587	33.2	7.17	
002	4/19/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	8.26	0.32	11.5	97.9	0.653		7.18	
002	4/20/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	7.63	0.27	12.28	102.9	0.556	10.9	7.07	
002	4/21/18 7:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23								
002	5/23/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.64	0.33	7.35	78.8	0.675	6.8	7.16	0.7
002	5/23/18 8:47 AM	B	CHARLES RIVER	UPPER BASIN		0.02	0.05	0.05	18.28	0.33	7.19	76.6	0.68	7	7.14	
002	5/24/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	19.79	0.33	7.21	79.1	0.671	4.3	7.39	1.2
002	5/24/18 9:16 AM	B	CHARLES RIVER	UPPER BASIN		0	0.02	0.05	19.33	0.33	6.94	75.4	0.674	8	7.34	
002	5/25/18 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	19.3	0.33	7.42	80.7	0.68	5.2	7.22	0.9
002	5/25/18 9:13 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.02	19.04	0.33	7.04	76.1	0.684	5.3	7.18	
002	5/29/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	19.16	0.34	7.59	82.2	0.691	5	7.37	1
002	5/29/18 8:45 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.08	18.6	0.34	7.48	80.2	0.692	9.4	7.32	
002	5/30/18 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	21.11	0.34	6.91	77.8	0.706	8.2	7.35	1.1
002	5/30/18 8:22 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	20.92	0.35	6.73	75.5	0.71	9.4	7.31	
002	5/31/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.5	0.35	7.52	85.3	0.711	5.4	7.33	0.7
002	5/31/18 8:38 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	21.3	0.35	7.14	80.7	0.712	8.4	7.28	
002	6/25/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	22.4	0.37	7.32	84.6	0.749	6.3	7.5	0.7
002	6/25/18 8:58 AM	B	CHARLES RIVER	UPPER BASIN		0.33	0.59	0.59	22.09	0.38	7.11	81.6	0.775	10.2	7.32	
002	6/26/18 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	22.84	0.27	6.61	76.9	0.56	6.8	7.43	0.5
002	6/27/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.32	0.31	7.35	84.7	0.643	6.1	7.6	1
002	6/27/18 8:59 AM	B	CHARLES RIVER	UPPER BASIN		0.09	0.09	0.42	21.76	0.37	5.2	59.3	0.755	5.2	7.31	
002	6/28/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	21.99	0.35	8.5	97.4	0.708		7.52	
002	6/29/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.71	0.28	7.1	82.4	0.584	7	7.82	0.8
002	6/29/18 9:19 AM	B	CHARLES RIVER	UPPER BASIN		0	1.16	1.25	21.8	0.29	6.4	73.1	0.591	9.5	7.54	
002	6/30/18 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16								
002	7/1/18 7:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
002	7/2/18 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.28	0.36	8.88	112.3	0.747	6.1	7.61	0.8
002	7/2/18 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	26.7	0.37	7.78	97.3	0.766	11.6	7.39	
002	7/3/18 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	27.66	0.37	9.11	115.9	0.768	5.9	7.6	0.7
002	7/3/18 8:53 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	27.26	0.37	9.17	115.9	0.769	5.5	7.6	
002	7/18/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	24.61	0.24	6.64	79.9	0.497	7	7.81	0.5
002	7/18/18 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0.06	2.74	2.74	24.5	0.24	5.57	66.9	0.496	9.3	7.57	
002	7/19/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	25.84	0.34	8.02	98.7	0.695		7.56	0.9
002	7/19/18 8:33 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	2.74	25.47	0.34	7.52	91.9	0.705		7.41	
002	7/20/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	25.55	0.35	8.85	108.4	0.725	5	7.62	
002	7/20/18 8:30 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	25.21	0.35	8.71	106	0.728	5.4	7.55	
002	7/21/18 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								1.5

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
002	7/22/18 7:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17								
002	8/6/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.57	0.34	8.33	105.8	0.711	4.4	7.97	1.3
002	8/6/18 8:59 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.64	26.66	0.34	6.08	76	0.711	10.4	7.66	
002	8/7/18 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	28.09	0.35	8.77	112.4	0.731	2.9	8.13	1.6
002	8/7/18 8:18 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.63	0.35	5.22	65.2	0.726	6.1	7.75	
002	8/8/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	28.68	0.35	8.16	105.7	0.73	3.3	8.05	1.7
002	8/8/18 9:10 AM	B	CHARLES RIVER	UPPER BASIN	0	0.98	0.98	0.98	27.37	0.37	3.63	45.9	0.75	11.9	7.55	
002	8/9/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04								
002	8/27/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.35	0.3	8.66	103.7	0.624	4.4	8.14	1
002	8/27/18 9:08 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	24.1	0.3	7.74	92.3	0.622	6.5	7.91	
002	8/28/18 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.02	0.3	7.1	86	0.63	3.6	7.01	1.7
002	8/28/18 8:48 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	24.82	0.31	6.81	82.2	0.633	5.7	6.99	
002	8/29/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.47	0.31	7.54	93.9	0.637	3.7	7.99	1.6
002	8/29/18 8:38 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	25.6	0.32	5.77	70.7	0.651	12	7.76	
002	8/30/18 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.34	0.32	7.3	92.3	0.654	3.6	8.02	1.1
002	8/30/18 8:56 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.19	0.36	5.15	63.8	0.736	6.7	7.68	
002	8/31/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.25	0.33	7.46	92.5	0.672	4.5	7.75	1.6
002	8/31/18 8:36 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.25	0.33	6.1	75.6	0.679	5.9	7.54	
002	9/18/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	22.57	0.31	8.38	97	0.641	7.41		
002	9/19/18 9:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.66	0.27	8.16	92.8	0.549	6.7	7.45	1
002	9/19/18 9:51 AM	B	CHARLES RIVER	UPPER BASIN	0	1.15	1.15	1.15	21.67	0.27	7.06	80.3	0.554	10.2	7.32	
002	9/20/18 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	20.32	0.29	7.59	84.2	0.589	5	7.28	1.6
002	9/20/18 9:35 AM	B	CHARLES RIVER	UPPER BASIN	0	0	1.15	1.15	20.29	0.29	7.42	82.2	0.589	6.3	7.17	
002	9/21/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	19.7	0.26	8.15	89.2	0.544	4	7.36	1.3
002	9/21/18 8:37 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	19.66	0.26	8.1	88.6	0.544	5.2	7.29	
002	9/22/18 6:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03								
002	9/23/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03								
002	10/9/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.53	0.2	9.08	93.1	0.413	4.7	7.2	0.6
002	10/9/18 9:19 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.1	16.37	0.2	9.13	93.4	0.412	8.5	7.14	
002	10/10/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.44	0.2	9.14	95.6	0.42	5.3	7.17	0.7
002	10/10/18 8:44 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	17.27	0.2	8.82	91.9	0.42	8.3	7.04	
002	10/11/18 9:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	18.62	0.21	8.72	93.4	0.428	4.4	7.22	
002	10/12/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	17.88	0.21	8.83	93.2	0.43	6.8	7.27	
002	10/13/18 8:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82								
002	10/14/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22								
002	10/15/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	13.58	0.22	9.79	94.2	0.462	7.24		
002	10/16/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	13.11	0.23	9.98	95.1	0.47	5.9	7.37	
002	10/26/18 9:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	7.92	0.27	11.13	93.9	0.548	4.9	7.45	1.3
002	10/26/18 9:57 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.04	7.78	0.27	11.22	94.4	0.549	5.1	7.41	
002	10/27/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17								
002	10/28/18 7:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2								
002	10/29/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	9.23	0.19	10.11	88	0.4	18.6	7.51	0.5
002	10/29/18 9:34 AM	B	CHARLES RIVER	UPPER BASIN	0.52	0.55	0.55	1.72	9.19	0.2	10.31	89.7	0.418	21.2	7.37	
002	10/30/18 9:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	8.99	0.24	10.19	88.3	0.495	6.8	7.42	0.8
002	10/30/18 9:58 AM	B	CHARLES RIVER	UPPER BASIN	0	0.52	0.55	0.55	8.95	0.24	10.57	91.5	0.495	15.6	7.28	
002	10/31/18 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.18	0.24	10.03	85.2	0.5	7.5	7.45	0.6
002	10/31/18 10:01 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.52	0.52	8.15	0.24	10.41	88.4	0.5	6.7	7.36	
002	11/10/18 6:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55								
002	11/11/18 7:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55								
002	11/12/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45								
002	11/13/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1								
002	11/14/18 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1								
003	3/2/18 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31								
003	3/3/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3								
003	3/4/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3								
003	3/5/18 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	4.58	0.3	12.44	96.6	0.611	10.1	7	
003	3/6/18 10:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	4.61	0.29	13.5	104.8	0.593	9.3		

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
003	3/7/18 10:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	3.93	0.28	12.18	92.9	0.579	10.3	7.21	
003	4/4/18 9:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	8.34	0.38	11.44	97.7	0.772	10.9	7.38	
003	4/5/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	6.79	0.35	11.96	98.2	0.716	9.7	7.58	
003	4/6/18 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	5.69	0.36	12.07	96.4	0.727	2.8	7.1	
003	4/9/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	6.39	0.33	11.45	93	0.675	1	7.54	1.6
003	4/9/18 8:45 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.01	6.34	0.33	11.42	92.7	0.676	1.9	7.5	
003	4/10/18 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.08	0.33	11.71	96.8	0.667	0.1	7.65	1.3
003	4/10/18 8:50 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.01	0.33	11.64	96.1	0.666	1.4	7.61	
003	4/11/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.11	0.33	11.67	96.6	0.666	3.6	7.55	1.1
003	4/11/18 9:05 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	6.91	0.33	11.65	95.9	0.667	4.9	7.47	
003	4/13/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	9.63	0.35	11.33	99.7	0.712	23.8	7.23	
003	4/17/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	8.22	0.31	11.73	99.8	0.626		6.87	
003	4/18/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	7.23	0.31	11.69	97	0.638	25	7.25	
003	4/19/18 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	7.83	0.3	11.49	96.8	0.607		7.25	
003	4/20/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	7.54	0.28	11.73	98.1	0.573	9.3	7.11	
003	4/21/18 6:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23								
003	5/23/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	19.05	0.33	7.08	76.6	0.677	5.5	7.15	1
003	5/23/18 8:32 AM	B	CHARLES RIVER	UPPER BASIN	0.02	0.05	0.05	0.05	18.76	0.33	6.9	74.2	0.678	6.1	7.12	
003	5/24/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	20.4	0.33	7.01	77.9	0.683	5.1	7.29	1
003	5/24/18 9:01 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.02	0.05	20.12	0.33	6.88	76	0.683	7.3	7.28	
003	5/25/18 8:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	20.69	0.33	6.96	77.7	0.686	5.2	7.18	0.7
003	5/25/18 8:59 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.02	20.18	0.33	6.6	73	0.685	10.2	7.14	
003	5/29/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	18.6	0.34	7.26	77.8	0.693	4.9	7.36	1.2
003	5/29/18 8:30 AM	B	CHARLES RIVER	UPPER BASIN	0	0.06	0.08	0.08	18.28	0.34	6.82	72.6	0.694	7.4	7.29	
003	5/30/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	21.08	0.35	7	78.8	0.707	7.3	7.35	1.3
003	5/30/18 8:08 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.06	20.76	0.35	6.87	76.9	0.708	8	7.33	
003	5/31/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.6	0.35	8.23	93.6	0.714	5.4	7.42	0.9
003	5/31/18 8:20 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	21.04	0.35	7.45	83.8	0.713	9	7.33	
003	6/25/18 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	22.26	0.4	7.15	82.4	0.82	6.5	7.47	0.6
003	6/25/18 8:41 AM	B	CHARLES RIVER	UPPER BASIN	0.33	0.59	0.59	0.59	22.02	0.4	6.49	74.4	0.817	6.6	7.31	
003	6/26/18 8:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	22.39	0.37	7.19	83	0.754	5.4	7.46	0.8
003	6/26/18 8:49 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.33	0.59	21.89	0.37	6.81	77.8	0.761	5.4	7.36	
003	6/27/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.47	0.32	6.63	76.6	0.649	6	7.41	0.7
003	6/27/18 8:37 AM	B	CHARLES RIVER	UPPER BASIN	0.09	0.09	0.42	0.42	22.45	0.32	6.49	75	0.649	6.7	7.33	
003	6/28/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	21.87	0.24	8.35	95.4	0.507		7.82	
003	6/29/18 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.23	0.27	6.69	76.9	0.55	9.1	7.69	0.7
003	6/29/18 9:00 AM	B	CHARLES RIVER	UPPER BASIN	0	1.16	1.25	1.25	21.83	0.26	6.38	72.8	0.538	10	7.49	
003	6/30/18 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16								
003	7/1/18 6:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
003	7/2/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.56	0.38	7.77	97	0.774	5.7	7.53	0.8
003	7/2/18 8:24 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.11	0.38	7.13	88.2	0.774	6.5	7.39	
003	7/3/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	27.8	0.37	8.78	112	0.762	5.4	7.57	1
003	7/3/18 8:36 AM	B	CHARLES RIVER	UPPER BASIN	0.01	0.01	0.01	0.01	27.17	0.37	7.76	97.8	0.771	8.5	7.45	
003	7/18/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	25.12	0.21	6.15	74.7	0.433	10	7.79	0.5
003	7/18/18 8:26 AM	B	CHARLES RIVER	UPPER BASIN	0.06	2.74	2.74	2.74	24.77	0.2	5.22	63	0.421	11.9	7.51	
003	7/19/18 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	25.32	0.27	6.71	81.8	0.552		7.59	0.9
003	7/19/18 8:18 AM	B	CHARLES RIVER	UPPER BASIN	0	0.06	2.74	2.74	25.03	0.27	5.93	71.9	0.551		7.42	
003	7/20/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	25.75	0.34	8.12	99.8	0.696	5.8	7.65	1.3
003	7/20/18 8:14 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.06	25.47	0.34	7.65	93.6	0.695	9.7	7.48	
003	7/21/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								1
003	7/22/18 7:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17								
003	8/6/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.58	0.36	7.75	98.4	0.741	5.5	7.9	1
003	8/6/18 8:46 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.64	27.25	0.36	6.89	87	0.744		7.62	
003	8/7/18 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.87	0.35	7.97	101.8	0.717	4.1	8.08	1.2
003	8/7/18 8:03 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	27.65	0.35	7.09	90.1	0.717	7.6	7.81	
003	8/8/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	28.41	0.36	8.11	104.5	0.74	4.2	8.18	1
003	8/8/18 8:55 AM	B	CHARLES RIVER	UPPER BASIN	0.98	0.98	0.98	0.98	28.19	0.36	7.47	95.9	0.74	10.3	7.95	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
003	8/9/18 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04								
003	8/27/18 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.14	0.3	7.7	91.9	0.614	4.7	8.07	1
003	8/27/18 8:57 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	23.78	0.3	6.65	78.8	0.614	10.8	7.76	
003	8/28/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.96	0.3	6.82	82.6	0.628	3.7	6.99	1.6
003	8/28/18 9:02 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	24.24	0.3	5.93	70.8	0.625	5.8	6.96	
003	8/29/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.09	0.31	7.62	94.2	0.636	3.8	8.12	1.5
003	8/29/18 8:24 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	25.81	0.31	6.83	84	0.636	6.8	7.92	
003	8/30/18 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.95	0.31	7.04	88.4	0.646	4.5	8	1.1
003	8/30/18 8:39 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.82	0.31	6.37	79.8	0.646	7	7.76	
003	8/31/18 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.06	0.32	6.98	86.2	0.661	4.3	7.63	1.4
003	8/31/18 8:17 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	26.05	0.32	5.89	72.8	0.662	6.3	7.5	
003	9/18/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	22.86	0.31	8.42	98.1	0.637		7.47	
003	9/19/18 9:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.76	0.24	7.65	87.2	0.491	7.6	7.4	0.8
003	9/19/18 9:37 AM	B	CHARLES RIVER	UPPER BASIN	0	1.15	1.15	1.15	21.77	0.24	6.62	75.5	0.489	10.1	7.2	
003	9/20/18 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	20.78	0.28	7.75	86.6	0.58	5.3	7.32	1.4
003	9/20/18 9:22 AM	B	CHARLES RIVER	UPPER BASIN	0	0	1.15	1.15	20.64	0.28	7.43	82.8	0.581	9.8	7.18	
003	9/21/18 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.12	0.27	8.14	89.9	0.561	4.6	7.33	1.4
003	9/21/18 8:22 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	20.06	0.27	8.16	90	0.561	7.7	7.3	
003	9/22/18 6:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03								
003	9/23/18 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03								
003	10/9/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.54	0.2	8.88	91.1	0.418	5.2	7.37	0.6
003	10/9/18 9:02 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.1	16.37	0.2	8.93	91.2	0.417	8.1	7.2	
003	10/10/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.32	0.2	9.14	95.3	0.422	4.9	7.08	1.1
003	10/10/18 8:26 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	17.16	0.2	9.13	94.9	0.42	7.7	7.02	
003	10/11/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	18.64	0.21	8.5	91.1	0.426	6.6	7.24	
003	10/12/18 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	17.31	0.19	8.62	89.9	0.401	9.1	7.34	
003	10/13/18 7:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82								
003	10/14/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22								
003	10/15/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	13.75	0.22	9.53	92.1	0.46	4.5	7.25	
003	10/16/18 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	12.88	0.23	9.87	93.6	0.476	5.6	7.42	
003	10/26/18 9:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	8.59	0.27	10.97	94.1	0.549	5.2	7.56	0.9
003	10/26/18 9:44 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.04	8.46	0.27	11.19	95.7	0.549	12.1	7.43	
003	10/27/18 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17								
003	10/28/18 7:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2								
003	10/29/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	8.89	0.24	10.08	87.1	0.49	6.2	7.46	0.7
003	10/29/18 9:25 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	8.86	0.24	10.24	88.4	0.49	17.4	7.35	
003	10/30/18 9:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	9.03	0.24	10.26	89	0.497	6.2	7.36	0.8
003	10/30/18 9:47 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.52	0.55	9.02	0.24	10.42	90.3	0.497	10.3	7.26	
003	10/31/18 9:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.38	0.24	10.03	85.6	0.504	7	7.43	0.6
003	10/31/18 9:51 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.52	8.38	0.24	10.28	87.7	0.504	8.1	7.34	
003	11/10/18 6:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55								
003	11/11/18 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55								
003	11/12/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45								
003	11/13/18 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1								
003	11/14/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1								
004	4/9/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	7.13	0.33	11.69	96.8	0.68	1.2	7.56	1.4
004	4/9/18 8:32 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.01	7.1	0.33	11.76	97.3	0.682	1.8	7.54	
004	4/10/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.82	0.33	11.71	98.6	0.672	0.7	7.65	1.2
004	4/10/18 8:38 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.76	0.33	11.98	100.7	0.672	1.4	7.62	
004	4/11/18 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.39	0.33	11.91	99.3	0.67	3.4	7.58	1.3
004	4/11/18 8:52 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.08	0.33	11.86	98.1	0.671	7.5	7.52	
004	5/23/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.77	0.33	6.85	73.6	0.676	5.2	7.16	1
004	5/23/18 8:19 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	18.45	0.33	6.61	70.6	0.675	6.6	7.12	
004	5/24/18 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	19.97	0.33	6.99	77	0.684	4.4	7.33	0.9
004	5/24/18 8:44 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0.02	0.05	19.45	0.33	6.45	70.3	0.683	6.8	7.28	
004	5/25/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	20.23	0.34	7.04	78	0.691	4.6	7.16	0.9
004	5/25/18 8:45 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.02	19.87	0.34	6.49	71.3	0.691	6.2	7.12	

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004	5/29/18 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	18.91	0.34	6.78	73.1	0.698	4.6	7.31	1.1
004	5/29/18 8:19 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.08	18.44	0.34	6.45	68.9	0.697	8.1	7.26	
004	5/30/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	20.59	0.35	6.99	77.9	0.707	6.6	7.36	1
004	5/30/18 7:57 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	19.19	0.34	6.54	70.9	0.703	7.1	7.32	
004	5/31/18 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.56	0.35	7.98	90.6	0.713	5	7.36	1
004	5/31/18 8:08 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	19.91	0.35	5.78	63.6	0.711	5	7.2	
004	6/25/18 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	23.15	0.41	7.76	90.9	0.845	6.1	7.44	0.5
004	6/25/18 8:26 AM	B	CHARLES RIVER	UPPER BASIN		0.33	0.59	0.59	23.02	0.41	6.82	79.7	0.836	6.4	7.34	
004	6/26/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	22.53	0.41	7.74	89.6	0.827	6.5	7.48	0.8
004	6/26/18 8:33 AM	B	CHARLES RIVER	UPPER BASIN		0	0.33	0.59	22.12	0.4	6.83	78.4	0.825	10	7.36	
004	6/27/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	23.36	0.4	8.35	98.2	0.814	6.8	7.55	0.6
004	6/27/18 8:20 AM	B	CHARLES RIVER	UPPER BASIN		0.09	0.09	0.42	22.17	0.4	5.22	60	0.824	7.2	7.33	
004	6/29/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.68	0.33	6.85	79.5	0.683	8.5	7.72	0.5
004	6/29/18 8:42 AM	B	CHARLES RIVER	UPPER BASIN		0	1.16	1.25	21.96	0.33	6.16	70.5	0.68	10.7	7.46	
004	7/2/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.03	0.36	8.25	101.9	0.738	8.2	7.58	1
004	7/2/18 8:07 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.41	0.37	4.8	57.6	0.766	3.9	7.32	
004	7/3/18 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	27.39	0.38	8.7	110.2	0.773	5.6	7.54	0.8
004	7/3/18 8:21 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	25.45	0.37	5.7	69.7	0.769	6.4	7.38	
004	7/18/18 8:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	25.86	0.33	6.86	84.5	0.679	9.7	7.66	0.4
004	7/18/18 8:09 AM	B	CHARLES RIVER	UPPER BASIN		0.06	2.74	2.74	25.81	0.33	6.49	79.8	0.68	10.6	7.4	
004	7/19/18 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	25.13	0.23	5.26	63.9	0.484		7.46	0.9
004	7/19/18 8:06 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	2.74	24.81	0.22	4.38	52.9	0.467		7.26	
004	7/20/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	25.37	0.25	7.58	92.5	0.511	5.8	7.72	1.1
004	7/20/18 7:58 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	24.87	0.24	5.97	72.1	0.508	8.7	7.5	
004	7/21/18 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								1
004	8/6/18 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.65	0.38	7.72	98.2	0.776	5.8	7.79	0.6
004	8/6/18 8:32 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.64	26.96	0.48	2.88	36.2	0.98	11.3	7.43	
004	8/7/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	28.21	0.36	8.67	111.4	0.746	4.7	8.14	0.7
004	8/7/18 7:50 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	26.59	0.6	4.04	50.5	1.209	8	7.68	
004	8/8/18 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	28.88	0.35	8.59	111.6	0.73	6.7	8.04	0.9
004	8/8/18 8:41 AM	B	CHARLES RIVER	UPPER BASIN		0.98	0.98	0.98	26.6	0.65	5.54	69.2	1.3	9.5	7.72	
004	8/27/18 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.35	0.29	9.41	112.7	0.6	5	8.32	0.9
004	8/27/18 8:42 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.14	0.29	7.02	83.7	0.598	8.3	7.84	
004	8/28/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.35	0.3	7.28	88.8	0.62	4	7	1.3
004	8/28/18 9:14 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.95	0.34	4.94	58.8	0.69	9.3	6.95	
004	8/29/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.78	0.31	8.02	100.4	0.633	4.2	8.02	1.1
004	8/29/18 8:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.03	0.38	6.08	72.5	0.771	11.9	7.82	
004	8/30/18 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	27.54	0.31	8.01	101.7	0.643	4.4	8.08	1
004	8/30/18 8:23 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.32	0.44	4.83	57.9	0.894	7.8	7.74	
004	8/31/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.5	0.34	7.2	88	0.702	4.5	7.62	1.4
004	8/31/18 8:00 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	25.06	0.4	5.18	62.9	0.81	7.5	7.46	
004	9/19/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.81	0.19	7.61	86.8	0.402	13.9	7.46	0.6
004	9/19/18 9:25 AM	B	CHARLES RIVER	UPPER BASIN		0	1.15	1.15	21.81	0.19	6.67	76.1	0.403	12.9	7.33	
004	9/20/18 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	20.89	0.27	7.5	84	0.558	6.1	7.3	1.1
004	9/20/18 9:09 AM	B	CHARLES RIVER	UPPER BASIN		0	0	1.15	20.86	0.27	6.99	78.3	0.562	10.3	7.13	
004	9/21/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.03	0.29	7.63	84.1	0.593	5.1	7.3	0.9
004	9/21/18 8:07 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	20.01	0.29	7.45	82.1	0.593	9	7.25	
004	10/9/18 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.65	0.2	8.72	89.6	0.421	5.1	7.37	0.7
004	10/9/18 8:45 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.1	16.5	0.2	8.76	89.8	0.42	6.6	7.07	
004	10/10/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.72	0.2	9.25	97.2	0.42	5.2	7.07	0.7
004	10/10/18 8:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	17.63	0.2	9.22	96.8	0.419	6.3	7.01	
004	10/26/18 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	8.37	0.26	11.07	94.4	0.542	5.1	7.44	1.3
004	10/26/18 9:32 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	8.17	0.26	11.06	93.9	0.542	5.9	7.39	
004	10/29/18 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	8.95	0.25	10	86.6	0.517	5.4	7.49	0.9
004	10/29/18 9:14 AM	B	CHARLES RIVER	UPPER BASIN		0.52	0.55	1.72	8.94	0.25	10.09	87.3	0.517	12.9	7.36	
004	10/30/18 9:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	9.3	0.22	10.21	89.1	0.456	7.4	7.33	0.6
004	10/30/18 9:34 AM	B	CHARLES RIVER	UPPER BASIN		0	0.52	0.55	9.27	0.22	10.23	89.2	0.454	10.8	7.27	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
004	10/31/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.82	0.24	10	86.2	0.5	6.7	7.43	0.8
004	10/31/18 9:39 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.52	8.7	0.24	10.12	87	0.5	4.6	7.33	
005	1/29/18 10:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	1.93	0.27	13.36	96.6	0.555	2	7.2	
005	2/13/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.69	0.14	0.45	14.51	100	0.933		7.12	
005	2/27/18 10:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.51	5.85	0.34	12.42	99.6	0.69	4.1	7.72	
005	3/2/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.3	2.3	2.31								
005	3/3/18 7:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	2.3	2.3								
005	3/4/18 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	2.3								
005	3/5/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	4.02	0.31	12.77	97.7	0.637		7.01	
005	3/6/18 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	3.89	0.27	12.86	98	0.562	14.8		
005	3/7/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	0.55	0.6	4.09	0.28	12.26	93.9	0.572	8.7	7.34	
005	3/16/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.04	2.39	0.47	13	95.3	0.964	12.8		
005	3/26/18 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.07	0.08	4.9	0.37	12.61	98.8	0.763	1.8	7.82	
005	4/4/18 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.2	0.67	0.78	7.97	0.36	11.26	95.2	0.736	3.8	7.33	
005	4/5/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.2	0.67	6.03	0.36	12.88	103.8	0.731	4.9	7.6	
005	4/6/18 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.21	0.21	0.41	5.64	0.36	12.42	99.1	0.727	4.1	7.12	
005	4/9/18 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	6.94	0.33	11.71	96.6	0.683	2.6	7.52	1.1
005	4/9/18 8:25 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.01	6.94	0.33	11.8	97.2	0.683	1.8	7.5	
005	4/10/18 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.01	0.33	11.66	96.3	0.681	27.5	7.63	0.6
005	4/10/18 8:31 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.01	0.33	11.63	96.1	0.68	39.9	7.59	
005	4/11/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.16	0.33	11.81	97.8	0.672	3.1	7.58	1.4
005	4/11/18 8:46 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	7.02	0.33	11.71	96.7	0.673	6	7.52	
005	4/12/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.06	0.06	8.19	0.33	12.41	105.5	0.671	5.1	7.52	
005	4/13/18 6:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.06	8.22	0.33	11.34	96.4	0.672	20.4	6.84	
005	4/17/18 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.57	1.61	7.28	0.24	11.77	97.8	0.496		6.87	
005	4/18/18 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.57	6.08	0.28	12.04	97.1	0.568	51.8	7.07	
005	4/19/18 7:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.23	0.23	0.23	7.32	0.29	11.4	94.8	0.596		7.26	
005	4/20/18 7:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.23	6.6	0.28	13.07	106.8	0.577	10.8	7.15	
005	4/21/18 6:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.23								
005	4/23/18 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.01	0.551	11.5	106.9	0.27		7.49	
005	5/8/18 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.19	18.76	0.29	8.74	93.9	0.592		7.37	
005	5/22/18 9:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.11	18.79	0.33	9.07	97.5	0.676		7.52	
005	5/23/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.02	0.05	0.05	19.06	0.33	6.92	74.8	0.673	5.7	7.13	0.8
005	5/23/18 8:12 AM	B	CHARLES RIVER	UPPER BASIN		0.02	0.05	0.05	19.02	0.33	6.64	71.7	0.673	9.6	7.12	
005	5/24/18 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.02	0.05	19.77	0.33	6.69	73.4	0.68	4.6	7.37	0.9
005	5/24/18 8:34 AM	B	CHARLES RIVER	UPPER BASIN		0	0.02	0.05	19.59	0.33	6.5	71.1	0.68	9.3	7.33	
005	5/25/18 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	20.56	0.34	7.21	80.4	0.695	5.5	7.21	0.4
005	5/25/18 8:37 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.02	20.57	0.34	6.95	77.5	0.695	9.5	7.17	
005	5/29/18 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.08	19.39	0.34	6.86	74.7	0.698	4.5	7.36	1
005	5/29/18 8:10 AM	B	CHARLES RIVER	UPPER BASIN	0	0.06	0.08	0.08	19.17	0.34	6.16	66.8	0.697	7.8	7.27	
005	5/30/18 7:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	20.54	0.34	6.69	74.5	0.704	8	7.36	0.9
005	5/30/18 7:49 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0.06	20.13	0.34	6.7	74	0.704	6.6	7.29	
005	5/31/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.23	0.35	7.67	86.5	0.71	5.3	7.36	1
005	5/31/18 7:59 AM	B	CHARLES RIVER	UPPER BASIN	0	0	0	0	21.2	0.35	7.7	86.9	0.709	6.8	7.29	
005	6/4/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.62	0.62	0.63	20.39	0.37	8.74	97	0.746		7.42	
005	6/19/18 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.14	0.14	23.07	0.4	8.62	100.8	0.818		7.76	
005	6/25/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	23.11	0.41	7.93	92.9	0.838	6.1	7.47	0.5
005	6/25/18 8:20 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0.33	0.59	0.59	22.97	0.41	7.07	82.6	0.838	14.6	7.35	
005	6/26/18 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.33	0.59	22.71	0.41	7.97	92.6	0.834	6.1	7.49	
005	6/27/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.51	0.41	8.35	96.6	0.844	6.7	7.54	0.6
005	6/27/18 8:12 AM	B	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.09	0.42	22.36	0.41	8.17	94.3	0.841	6.1	7.45	
005	6/28/18 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.16	1.25	1.25	22.3	0.42	8.4	96.9	0.846		7.58	
005	6/29/18 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.16	1.25	22.49	0.32	6.23	72	0.657	7.8	7.55	0.6
005	6/29/18 8:30 AM	B	CHARLES RIVER	UPPER BASIN	0	1.16	1.25	1.25	22.15	0.32	5.81	66.8	0.656	9.7	7.36	
005	6/30/18 6:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.16								
005	7/1/18 6:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
005	7/2/18 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.13	0.35	8.28	102.5	0.721	5.8	7.51	0.9

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
005	7/2/18 7:58 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	25.81	0.35	7.33	90.3	0.721	11.4	7.35	
005	7/3/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	27.34	0.37	9.04	114.4	0.753	5.5	7.55	0.7
005	7/3/18 8:12 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	27.13	0.37	8.54	107.6	0.753	5.3	7.52	
005	7/5/18 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	28.48	0.39	8.69	112.2	0.81		7.93	
005	7/16/18 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.32	26.48	0.38	8.43	105.1	0.79		7.61	
005	7/18/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	2.74	2.74	26.16	0.36	6.97	86.3	0.738	7.8	7.63	0.5
005	7/18/18 7:59 AM	B	CHARLES RIVER	UPPER BASIN		0.06	2.74	2.74	26.02	0.36	6.78	83.8	0.747	9.9	7.47	
005	7/19/18 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	2.74	25.42	0.3	5.93	72.4	0.618		7.45	0.6
005	7/19/18 7:59 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	2.74	25.09	0.29	5.42	65.8	0.604		7.3	
005	7/20/18 7:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.06	25.23	0.24	7.15	87	0.49	6.2	7.66	1
005	7/20/18 7:51 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.06	25.02	0.23	6.18	74.9	0.489	8.4	7.51	
005	7/21/18 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								1
005	7/22/18 7:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.17	0.17	0.17								
005	8/1/18 9:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.65	0.38	8.47	105.8	0.785		7.95	
005	8/6/18 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.64	27.73	0.41	7.77	99	0.835	5.1	7.75	0.7
005	8/6/18 8:23 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.64	27.32	0.41	7.01	88.7	0.842	12.4	7.59	
005	8/7/18 7:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	28.26	0.38	8.84	113.6	0.782	4.1	8.13	1.1
005	8/7/18 7:42 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	28.01	0.38	8.26	105.7	0.784	4.1	7.9	
005	8/8/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.98	0.98	0.98	28.64	0.38	8.08	104.6	0.79	5	7.96	0.6
005	8/8/18 8:35 AM	B	CHARLES RIVER	UPPER BASIN		0.98	0.98	0.98	28.18	0.41	6.91	88.8	0.85	6.4	7.7	
005	8/9/18 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	1.04	1.04								
005	8/20/18 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.14	24.44	0.3	8.96	107.5	0.626		7.94	
005	8/27/18 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.5	0.29	8.18	98.3	0.592	4.9	7.96	1
005	8/27/18 8:33 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.19	0.29	7.17	85.6	0.593	10.1	7.76	
005	8/28/18 9:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.46	0.3	7.46	91.2	0.614	3.7	7.03	
005	8/28/18 9:21 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.9	0.3	7.1	86	0.617	8.8	7.01	
005	8/29/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.18	0.31	8.14	100.8	0.64	3.8	8.17	
005	8/29/18 8:00 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	26.06	0.31	6.75	83.5	0.643	14	7.82	
005	8/30/18 8:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.95	0.32	8.26	103.8	0.661	4.3	8.19	1
005	8/30/18 8:14 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	26.12	0.34	6.55	81	0.703	11.1	7.78	
005	8/31/18 7:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.79	0.34	7.17	88.2	0.699	5	7.59	1.2
005	8/31/18 7:52 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	25.77	0.34	6.58	80.9	0.701	7.2	7.49	
005	9/7/18 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03	24.8	0.41	9.43	113.9	0.835		7.94	
005	9/17/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.66	0.29	8.35	95	0.6	4.9	7.83	
005	9/18/18 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.15	1.15	1.15	22.83	0.31	7.42	86.4	0.641		7.32	
005	9/19/18 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.15	1.15	21.88	0.22	7.4	84.6	0.451	10.9	7.43	0.7
005	9/19/18 9:16 AM	B	CHARLES RIVER	UPPER BASIN		0	1.15	1.15	21.87	0.22	6.43	73.5	0.457		7.21	
005	9/20/18 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	1.15	21	0.25	6.92	77.7	0.523	6.1	7.21	0.7
005	9/20/18 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0	0	1.15	20.93	0.25	6.53	73.2	0.517		7.14	
005	9/21/18 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.16	0.28	7.24	80	0.58	4.7	7.32	0.6
005	9/21/18 8:00 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	20.11	0.28	7.06	77.9	0.58	6.9	7.26	
005	9/22/18 6:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.03								
005	9/23/18 7:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.03	0.03								
005	10/2/18 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.29	0.35	0.35								
005	10/9/18 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	16.72	0.21	8.75	90.1	0.425	5.6	7.4	0.6
005	10/9/18 8:36 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.1	16.64	0.2	8.49	87.2	0.424	10.8	7.19	
005	10/10/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	17.65	0.2	8.98	94.3	0.421	5.3	7.16	0.7
005	10/10/18 8:01 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	17.61	0.2	8.75	91.8	0.421	9.4	7.08	
005	10/11/18 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.6	0.6	0.6	18.65	0.2	7.49	80.3	0.422	11	7.17	
005	10/12/18 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.09	0.69	0.69	17.54	0.21	8.08	84.6	0.428	9.1	7.22	
005	10/13/18 7:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.13	0.22	0.82								
005	10/14/18 7:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.13	0.22								
005	10/15/18 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.2	13.5	0.22	9.08	87.3	0.453	3.6	7.23	
005	10/16/18 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.1	0.1	11.16	0.23	10.28	93.7	0.468	9.4	7.37	
005	10/18/18 9:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.03	8.48	0.24	11.44	97.9	0.486	13.7	7.58	
005	10/26/18 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	8.37	0.26	10.78	92	0.537	5	7.53	0.7
005	10/26/18 9:23 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	8.36	0.26	10.99	93.7	0.537	11.3	7.41	

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005	10/27/18 7:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.17	1.17	1.17								
005	10/28/18 6:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	1.2	1.2								
005	10/29/18 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.52	0.55	1.72	8.82	0.25	9.95	85.9	0.507	5.3	7.46	0.8
005	10/29/18 9:08 AM	B	CHARLES RIVER	UPPER BASIN		0.52	0.55	1.72	8.81	0.25	9.93	85.7	0.508	8.5	7.35	
005	10/30/18 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.52	0.55	9.38	0.2	10.09	88.2	0.413	9	7.43	0.6
005	10/30/18 9:26 AM	B	CHARLES RIVER	UPPER BASIN		0	0.52	0.55	9.35	0.2	10.12	88.4	0.412	10.9	7.27	
005	10/31/18 9:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.52	8.9	0.24	10.05	86.8	0.498	6.6	7.38	0.7
005	10/31/18 9:33 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.52	8.79	0.24	10.11	87.1	0.498	8.5	7.31	
005	11/2/18 9:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.37	0.37	12.43	0.26	9.57	89.8	0.525	9.2	7.44	
005	11/10/18 6:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.45	1.55	1.55								
005	11/11/18 7:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.45	1.55								
005	11/12/18 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.45								
005	11/13/18 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.1	1.1	1.1								
005	11/14/18 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	1.1	1.1								
005	11/15/18 10:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	0.46	1.56	3.21	0.16	12.85	96.1	0.331	5.6	7.51	
005	11/27/18 10:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.46	1.33	2.11	5.18	0.24			0.492	7.12		
006	4/9/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.37	0.34	11.54	93.8	0.687	1.1	7.5	1.4
006	4/9/18 8:20 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.01	6.33	0.34	11.52	93.5	0.687	1.3	7.47	
006	4/10/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.04	0.33	11.66	96.4	0.683	0.7	7.66	1.3
006	4/10/18 8:25 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	7.01	0.33	11.56	95.5	0.684	1.1	7.59	
006	4/11/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.06	0.33	11.7	96.8	0.68	3.5	7.57	1.3
006	4/11/18 8:33 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	6.74	0.33	11.56	94.8	0.678	9.2	7.49	
006	5/23/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	19.01	0.33	6.75	72.9	0.675	5.3	7.14	1.1
006	5/23/18 8:04 AM	B	CHARLES RIVER	MID-BASIN		0.02	0.05	0.05	18.24	0.38	4.68	49.8	0.776	6.6	7.04	
006	5/24/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.87	0.34	6.54	71.9	0.691	4.3	7.34	0.9
006	5/24/18 8:27 AM	B	CHARLES RIVER	MID-BASIN		0	0.02	0.05	18.52	0.37	5.06	54.1	0.749	7.3	7.25	
006	5/25/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	20.01	0.34	6.62	73	0.698	4.7	7.16	1.1
006	5/25/18 8:29 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.02	18.89	0.39	4.49	48.4	0.793	4.8	7.05	
006	5/29/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19.15	0.38	6.07	65.8	0.781	5.4	7.29	1
006	5/29/18 8:03 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	0.08	18.63	0.45	5.66	60.7	0.902	6.6	7.23	
006	5/30/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.5	0.35	6.97	77.5	0.707	6.2	7.37	1.2
006	5/30/18 7:42 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	19.91	0.35	6.54	72	0.712	7.4	7.34	
006	5/31/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	21.28	0.35	8.07	91.2	0.71	5	7.37	0.7
006	5/31/18 7:51 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	20.21	0.36	5.42	60	0.735	5.7	7.22	
006	6/25/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.88	0.43	7.08	82.5	0.876	7.4	7.44	0.5
006	6/25/18 8:16 AM	B	CHARLES RIVER	MID-BASIN		0.33	0.59	0.59	21.88	0.69	5.12	58.6	1.382	9.6	7.24	
006	6/26/18 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.88	0.43	7.84	91.4	0.874	6.8	7.49	0.6
006	6/26/18 8:19 AM	B	CHARLES RIVER	MID-BASIN		0	0.33	0.59	22.23	0.58	5.12	59	1.175	13.7	7.31	
006	6/27/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.06	0.48	7.46	85.6	0.971	7	7.51	0.7
006	6/27/18 8:04 AM	B	CHARLES RIVER	MID-BASIN		0.09	0.09	0.42	21.88	0.68	4.52	51.8	1.366	9.5	7.25	
006	6/29/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.63	0.34	6.47	75	0.7	7.7	7.54	0.8
006	6/29/18 8:21 AM	B	CHARLES RIVER	MID-BASIN		0	1.16	1.25	21.56	0.61	3.85	43.8	1.23	10	7.26	
006	7/2/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.02	0.36	8.14	100.6	0.738	6.1	7.5	0.7
006	7/2/18 7:50 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.6	0.37	6.41	78.5	0.752	6.3	7.32	
006	7/3/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.79	0.38	8.45	105.8	0.78	5.9	7.51	0.8
006	7/3/18 8:05 AM	B	CHARLES RIVER	MID-BASIN		0.01	0.01	0.01	24.04	0.6	4.91	58.6	1.203	9.4	7.28	
006	7/18/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	26.22	0.4	6.91	85.6	0.824	8.1	7.58	0.6
006	7/18/18 7:50 AM	B	CHARLES RIVER	MID-BASIN		0.06	2.74	2.74	25.2	0.6	3.82	46.6	1.203	8.8	7.33	
006	7/19/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.5	0.41	5.34	65.3	0.846	7.34		0.9
006	7/19/18 7:51 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	2.74	25.03	0.64	1.57	19.1	1.293	7.11		
006	7/20/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.34	0.27	6.52	79.5	0.552	6.2	7.65	1
006	7/20/18 7:45 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	25.21	0.47	3.39	41.3	0.963	10.2	7.33	
006	7/21/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1
006	8/6/18 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.47	0.43	8.27	105	0.89	5.9	7.9	0.6
006	8/6/18 8:13 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.64	25.91	0.58	3.09	38.2	1.168	7.7	7.4	
006	8/7/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	27.79	0.42	8.5	108.4	0.855	4.2	8.06	0.7
006	8/7/18 7:34 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	26.39	0.72	5.06	63	1.445	5.5	7.75	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
006	8/8/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	28.32	0.41	7.85	101.1	0.84	4.1	7.92	0.8
006	8/8/18 8:27 AM	B	CHARLES RIVER	MID-BASIN		0.98	0.98	0.98	26.61	0.72	3.31	41.4	1.44	7.2	7.52	
006	8/27/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.13	0.3	8.31	99.1	0.625	5.2	8	1
006	8/27/18 8:29 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	23.05	0.41	5.71	66.7	0.845	11.4	7.68	
006	8/28/18 9:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.13	0.31	7.28	88.4	0.639	4.4	7.02	1.3
006	8/28/18 9:28 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	23.58	0.42	6.77	80	0.849	7.9	7.02	
006	8/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.79	0.34	7.84	96.4	0.71	4.8	8	1
006	8/29/18 7:52 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	24.1	0.48	5.85	69.8	0.977	10.8	7.73	
006	8/30/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.42	0.34	7.83	97.4	0.702	4.5	8.03	1.1
006	8/30/18 8:03 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	24.72	0.47	4.65	56.2	0.952	7.3	7.59	
006	8/31/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.93	0.35	7.72	95.2	0.727	5.1	7.69	1.2
006	8/31/18 7:46 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.7	0.36	7.14	87.7	0.746	8.8	7.57	
006	9/19/18 9:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	21.59	0.25	8.53	97	0.528	13.6	7.61	0.7
006	9/19/18 9:10 AM	B	CHARLES RIVER	MID-BASIN		0	1.15	1.15	21.98	0.25	6.46	74	0.524	15.1	7.24	
006	9/20/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	21.07	0.24	7.02	78.9	0.502	6.7	7.27	1
006	9/20/18 8:57 AM	B	CHARLES RIVER	MID-BASIN		0	0	1.15	21	0.24	6.58	73.9	0.504	7.7	7.18	
006	9/21/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.42	0.28	7.48	83.1	0.584	6.2	7.33	0.7
006	9/21/18 7:55 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	20.38	0.28	7.38	81.9	0.586	8.5	7.28	
006	10/9/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.6	0.21	8.62	88.5	0.425	6	7.4	0.6
006	10/9/18 8:28 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.1	16.53	0.21	8.51	87.2	0.426	9.2	7.21	
006	10/10/18 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.47	0.2	9.04	94.6	0.423	5.4	7.17	1
006	10/10/18 7:54 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	17.35	0.21	8.98	93.7	0.429	7	7.1	
006	10/26/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	8.35	0.26	10.64	90.8	0.532	5.3	7.6	1.1
006	10/26/18 9:17 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.04	8.25	0.26	10.74	91.4	0.533	7.1	7.46	
006	10/29/18 9:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	8.82	0.24	9.93	85.7	0.495	5.4	7.53	0.7
006	10/29/18 9:03 AM	B	CHARLES RIVER	MID-BASIN		0.52	0.55	1.72	8.78	0.24	9.87	85	0.5	7.1	7.39	
006	10/30/18 9:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.18	0.21	10.04	87.4	0.441	10.7	7.5	0.6
006	10/30/18 9:19 AM	B	CHARLES RIVER	MID-BASIN		0	0.52	0.55	9.17	0.21	10.14	88.2	0.438	9.9	7.29	
006	10/31/18 9:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	8.71	0.25	10.01	86.1	0.508	7.2	7.32	0.5
006	10/31/18 9:27 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.52	8.61	0.25	10.09	86.6	0.505	7.8	7.27	
007	3/2/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31								
007	3/3/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3								
007	3/4/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3								
007	3/5/18 9:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	4.96	0.3	12.7	99.5	0.611	3.5	6.99	
007	3/6/18 9:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	4.69	0.31	12.43	96.8	0.631	5.5		
007	3/7/18 9:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	4.23	0.27	12.75	98	0.553	3.8	7.23	
007	4/4/18 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	8.38	0.37	11.22	95.8	0.757	2.1	7.29	
007	4/4/18 8:54 AM	B	CHARLES RIVER	MID-BASIN		0.2	0.67	0.78	8.38	0.37	11.03	94.2	0.76	1.5	7.3	
007	4/5/18 8:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	7.82	0.52	12.08	101.9	1.056	4.3	7.46	
007	4/5/18 8:36 AM	B	CHARLES RIVER	MID-BASIN		0	0.2	0.67	7.82	0.53	11.7	98.7	1.057	12.3	7.43	
007	4/6/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	6.67	0.45	11.64	95.4	0.906	3.2	6.83	
007	4/9/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.73	0.42	11.47	94.1	0.849	1.3	7.45	1.4
007	4/9/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0.01	6.81	0.46	11.18	91.9	0.924	2.7	7.43	
007	4/10/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.15	0.36	11.43	94.7	0.737	0.4	7.75	1.4
007	4/10/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	6.96	0.41	11.26	93	0.836	5.5	7.65	
007	4/11/18 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.07	0.36	11.67	96.5	0.731	2.9	7.69	1.5
007	4/11/18 8:27 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0	7	0.42	11.01	90.9	0.854	8.5	7.58	
007	4/13/18 6:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	8.67	0.35	11.38	97.9	0.707	3	6.76	
007	4/17/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	7.71	0.23	11.38	95.6	0.478	8.5	7.12	
007	4/18/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	7.5	0.3	11.85	99.1	0.617	18.4	7.05	
007	4/19/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	8.18	0.3	11.39	96.8	0.611		7.26	
007	4/19/18 8:00 AM	B	CHARLES RIVER	MID-BASIN		0.23	0.23	0.23	8.2	0.3	10.91	92.8	0.612		7.23	
007	4/20/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	8.05	0.3	11.97	101.4	0.619	9.2	7.09	
007	4/20/18 7:53 AM	B	CHARLES RIVER	MID-BASIN		0	0.23	0.23	8.07	0.3	11.32	96	0.621	15	7.12	
007	4/21/18 6:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23								
007	5/23/18 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.6	0.35	6.39	68.5	0.706	4.7	7.14	1
007	5/23/18 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.02	0.05	0.05	18.34	0.35	5.66	60.4	0.711	8.8	7.1	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
007	5/24/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.19	0.37	6.61	71.6	0.753	3.6	7.39	1.3
007	5/24/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0.02	0.05	18.15	0.43	4.25	45.1	0.862	6.7	7.23	
007	5/25/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.75	0.35	6.42	70.5	0.722	4.4	7.15	0.9
007	5/25/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.02	19.43	0.4	6.45	70.3	0.814	5.2	7.13	
007	5/29/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19.24	0.42	6.68	72.6	0.85	4.2	7.3	0.8
007	5/29/18 7:43 AM	B	CHARLES RIVER	MID-BASIN	3.1	0	0.06	0.08	18.88	0.44	6.28	67.7	0.888	9.6	7.29	
007	5/30/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.59	0.41	6.44	71.8	0.825	6.6	7.36	0.7
007	5/30/18 7:30 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.06	19.12	0.45	5.31	57.6	0.905	8.9	7.28	
007	5/31/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	21.12	0.36	7.94	89.4	0.733	4.9	7.38	1
007	5/31/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	19.39	0.5	4.79	52.2	1.011	8.2	7.21	
007	6/25/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.85	0.61	7.35	85.8	1.22	5.7	7.45	1.1
007	6/25/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.33	0.59	0.59	21.15	1.04	3.09	35	2.038	14.5	7.24	
007	6/26/18 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.56	0.64	8.29	96.2	1.276	5.5	7.57	1.3
007	6/26/18 8:02 AM	B	CHARLES RIVER	MID-BASIN	4	0	0.33	0.59	21.48	0.77	3.66	41.6	1.522	11.2	7.35	
007	6/27/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	21.93	0.6	7.17	82.2	1.212	6.4	7.44	1.3
007	6/27/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.09	0.09	0.42	22.02	1	5.9	67.9	1.967	7.3	7.27	
007	6/28/18 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	22	0.62	7.48	85.9	1.238		7.43	
007	6/28/18 8:14 AM	B	CHARLES RIVER	MID-BASIN		1.16	1.25	1.25	22.01	0.62	6.85	78.6	1.242		7.36	
007	6/29/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.43	0.54	6.79	78.5	1.081	6.9	7.55	0.9
007	6/29/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	4	0	1.16	1.25	21.44	0.92	3.18	36.2	1.82	8.6	7.25	
007	6/30/18 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16								
007	7/1/18 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								
007	7/2/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.36	0.51	8.88	110.4	1.035	6.5	7.57	1
007	7/2/18 7:41 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	21.66	0.79	1.12	12.8	1.559	7.4	7.2	
007	7/3/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.47	0.48	8.32	103.7	0.979	5.6	7.5	1
007	7/3/18 7:51 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.01	0.01	0.01	21.72	0.97	3.68	42.1	1.911	4.6	7.26	
007	7/18/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	25.91	0.51	6.65	82	1.029	6.3	7.58	0.8
007	7/18/18 7:36 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.06	2.74	2.74	24.39	1.26	0.92	11.1	2.46	8.9	7.23	
007	7/19/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.62	0.54	5.54	68	1.086		7.42	1.1
007	7/19/18 7:37 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0.06	2.74	22.9	1.7	0.87	10.2	3.253		7.09	
007	7/20/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.71	0.49	7.75	95.3	0.997	5	7.61	1.5
007	7/20/18 7:33 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.06	24.09	1.24	2.12	25.5	2.407	9.4	7.26	
007	7/21/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1
007	7/21/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0								
007	7/22/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17								
007	8/6/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.29	0.52	8.23	104.1	1.05	4.7	7.85	1
007	8/6/18 7:55 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0.64	24.13	2.12	1.55	18.7	4.012	9.8	7.3	
007	8/7/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	27.12	0.62	8.84	111.6	1.243	4.1	8.17	1.4
007	8/7/18 7:21 AM	B	CHARLES RIVER	MID-BASIN	4.4	0	0	0	23.71	2.8	2.57	30.8	5.197	7	7.5	
007	8/8/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	27.88	0.63	8.66	110.8	1.26	3.4	8.21	1.5
007	8/8/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.98	0.98	0.98	23.12	3.59	0.69	8.2	6.57	9.1	7.33	
007	8/9/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04								
007	8/27/18 8:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.55	0.39	8.84	104.4	0.795	4.6	8.07	1.3
007	8/27/18 8:17 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	23.38	0.57	6.06	71.4	1.144	10.2	7.75	
007	8/28/18 9:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.65	0.4	8.42	101.4	0.823	3.7	7.17	1.3
007	8/28/18 9:39 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	23.08	0.58	3.72	43.5	1.168	9.4	7.04	
007	8/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.42	0.44	9.3	113.7	0.895	4	8.26	1
007	8/29/18 7:39 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	22.91	0.74	2.27	26.5	1.476	10.1	7.72	
007	8/30/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.93	0.43	8.56	105.6	0.889	4.3	8.1	1.3
007	8/30/18 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	23.49	0.68	2.05	24.2	1.361	9.5	7.58	
007	8/31/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.54	0.42	8.04	98.5	0.855	5.3	7.7	1.3
007	8/31/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	25.15	0.47	7.16	87.1	0.952	7.5	7.6	
007	9/18/18 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	22.31	0.41	7.63	87.9	0.834		7.26	
007	9/19/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	21.96	0.36	7.41	84.9	0.745	6.9	7.36	1.1
007	9/19/18 8:57 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	1.15	1.15	21.52	1	2.81	32	1.961	7	7.08	
007	9/20/18 8:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	20.97	0.26	7.1	79.7	0.527	7.6	7.39	1
007	9/20/18 8:47 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	1.15	21.39	7.05	2.43	28.6	12.28	23	6.56	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
007	9/21/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.75	0.33	7.14	79.9	0.67	4.9	7.37	1
007	9/21/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	21.13	1.75	1.21	13.7	3.337	16.5	6.98	
007	9/22/18 6:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03								
007	9/23/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03								
007	10/9/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.74	0.22	8.43	86.8	0.462	5.5	7.44	0.9
007	10/9/18 8:16 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0.1	16.63	0.23	8.2	84.3	0.471	9.3	7.31	
007	10/10/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.44	0.22	8.74	91.4	0.455	4.9	7.3	0.9
007	10/10/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	17.3	0.23	8.25	86	0.476	7.5	7.25	
007	10/11/18 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	18.24	0.23	7.82	83.2	0.474	4.1	7.11	
007	10/12/18 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	18.24	0.21	8.88	94.4	0.443	4.7	7.23	
007	10/13/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82								
007	10/14/18 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22								
007	10/15/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	15.45	0.25	7.84	78.6	0.511	1.4	7.16	
007	10/16/18 9:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	15.15	0.27	9.41	93.8	0.558	6.7	7.33	
007	10/16/18 9:05 AM	B	CHARLES RIVER	MID-BASIN		0.03	0.1	0.1	15.1	0.27	8.76	87.2	0.56	7.5	7.28	
007	10/26/18 9:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	9.52	0.32	10.13	88.9	0.651	5.5	7.59	0.9
007	10/26/18 9:04 AM	B	CHARLES RIVER	MID-BASIN	4.6	0	0	0.04	9.52	0.33	8.04	70.6	0.671		7.47	
007	10/27/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17								
007	10/28/18 6:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2								
007	10/29/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.11	0.24	9.77	84.9	0.486	6.3	7.54	0.6
007	10/29/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.52	0.55	1.72	9.19	0.3	9.41	82	0.617	8	7.45	
007	10/30/18 9:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.08	0.28	9.91	86.1	0.569	6.3	7.37	0.7
007	10/30/18 9:06 AM	B	CHARLES RIVER	MID-BASIN	4	0	0.52	0.55	9.04	0.29	9.61	83.4	0.592		7.29	
007	10/31/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	8.92	0.26	9.7	83.9	0.531	7.6	7.45	0.5
007	10/31/18 9:17 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0.52	8.83	0.28	9.38	81	0.576	18.7	7.32	
007	11/10/18 6:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55								
007	11/11/18 7:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55								
007	11/12/18 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45								
007	11/13/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1								
007	11/14/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1								
145	3/2/18 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31								
145	3/3/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3								
145	3/4/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3								
145	3/5/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	5.35	0.4	12.57	99.6	0.825	4.2	7.06	
145	3/6/18 9:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	4.63	0.32	12.96	100.7	0.662	6.5		
145	3/7/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	4.59	0.39	12.66	98.3	0.794	4.9	7.21	
145	4/4/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	8.32	0.39	11.7	99.8	0.786	6.4	7.37	
145	4/5/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	6.54	0.39	13.51	110.3	0.793	6	8.32	
145	4/6/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	6.87	0.44	12.4	102.1	0.888	3.5	7.15	
145	4/9/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.32	0.35	11.51	93.4	0.711	0.8	7.54	1.2
145	4/9/18 8:11 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.01	6.24	0.35	11.42	92.5	0.707	3.7	7.48	
145	4/10/18 8:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.29	0.36	11.6	96.5	0.736	0.2	7.68	1.4
145	4/10/18 8:17 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	7.5	0.45	11.04	92.3	0.917	5	7.56	
145	4/11/18 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.18	0.35	11.91	98.8	0.711	3	7.63	1.4
145	4/11/18 8:32 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	7.42	0.56	9.92	82.9	1.129	20.7	7.38	
145	4/13/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	8.63	0.35	11.83	101.7	0.707	2.7	7.32	
145	4/17/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	7.65	0.34	11.47	96.2	0.688	33.1	7.13	
145	4/18/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	7.22	0.28	12.13	100.6	0.568	23.3	7.13	
145	4/19/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	8.12	0.31	11.64	98.8	0.629		7.31	
145	4/20/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	7.62	0.29	12.22	102.4	0.587	10.9	7.08	
145	4/21/18 6:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23								
145	5/23/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.46	0.36	6.28	67.1	0.732	4.7	7.1	1
145	5/23/18 7:56 AM	B	CHARLES RIVER	MID-BASIN		0.02	0.05	0.05	15.71	0.67	4.92	49.8	1.332	12.3	6.96	
145	5/24/18 8:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.36	0.36	5.59	60.8	0.744	4.3	7.26	1
145	5/24/18 8:18 AM	B	CHARLES RIVER	MID-BASIN		0	0.02	0.05	18.47	0.4	5.12	54.7	0.805	7	7.22	
145	5/25/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.76	0.37	7.5	82.2	0.761	7	7.23	1
145	5/25/18 8:20 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.02	18.92	0.4	6.07	65.5	0.82	9.1	7.1	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
145	5/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19.29	0.36	6.57	71.4	0.743	3.8	7.31	1.1
145	5/29/18 7:52 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	0.08	17.27	0.61	3.5	36.5	1.217	10.3	7.08	
145	5/30/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.72	0.45	6.32	70.7	0.915	7.4	7.31	0.7
145	5/30/18 7:35 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	19.09	0.52	5.1	55.2	1.041	7.9	7.23	
145	5/31/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	21.25	0.39	7.83	88.5	0.802	4.7	7.37	0.8
145	5/31/18 7:45 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	20.86	0.55	4.33	48.6	1.115	22.7	7.13	
145	6/25/18 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.72	0.5	6.93	80.6	1.019	6.2	7.43	0.6
145	6/25/18 8:10 AM	B	CHARLES RIVER	MID-BASIN		0.33	0.59	0.59	22.62	0.51	5.1	59.2	1.031	6.1	7.31	
145	6/26/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.33	0.55	7.35	84.8	1.102	5.7	7.46	0.8
145	6/26/18 8:08 AM	B	CHARLES RIVER	MID-BASIN		0	0.33	0.59	21.98	0.56	4.99	57.3	1.137	10.6	7.27	
145	6/27/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.06	0.59	7.48	85.9	1.195	6.3	7.41	0.9
145	6/27/18 7:56 AM	B	CHARLES RIVER	MID-BASIN		0.09	0.09	0.42	20.95	0.61	5.01	56.4	1.229	6.6	7.25	
145	6/28/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	22	0.61	6.56	75.3	1.225	7.31	7.31	
145	6/29/18 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.66	0.41	6.21	72	0.843	7.5	7.56	0.6
145	6/29/18 8:13 AM	B	CHARLES RIVER	MID-BASIN		0	1.16	1.25	21.94	0.32	4.08	46.7	0.662	9.9	7.34	
145	6/30/18 6:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16								
145	7/1/18 6:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								
145	7/2/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.35	0.43	5.74	71.4	0.874	6.2	7.37	1.3
145	7/2/18 7:46 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.57	0.49	5.56	68.2	0.988	11.6	7.24	
145	7/3/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.96	0.47	9.03	113.5	0.962	6.4	7.61	0.9
145	7/3/18 7:58 AM	B	CHARLES RIVER	MID-BASIN		0.01	0.01	0.01	26.56	0.47	7.84	97.9	0.968	7.5	7.54	
145	7/18/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	25.87	0.4	6.74	83.1	0.819	8	7.59	0.5
145	7/18/18 7:42 AM	B	CHARLES RIVER	MID-BASIN		0.06	2.74	2.74	23.77	0.27	5.25	62.2	0.553	13.1	7.43	
145	7/19/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.16	0.47	6.44	78.4	0.95	7.45	7.45	0.9
145	7/19/18 7:44 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	2.74	22.37	0.44	4.09	47.2	0.89	7.27	7.27	
145	7/20/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.68	0.48	7.68	94.3	0.979	5.1	7.48	1.3
145	7/20/18 7:37 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	25.29	0.49	6.81	83	0.996	9.9	7.43	
145	7/21/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1
145	7/22/18 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17								
145	8/6/18 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.34	0.59	9.23	116.9	1.199	4.3	8.02	1.3
145	8/6/18 8:01 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.64	22.48	0.53	5.77	66.8	1.077	6.5	7.72	
145	8/7/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	27.19	0.57	7.95	100.4	1.159	4.4	7.95	1.2
145	8/7/18 7:25 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	26.98	0.6	7.49	94.3	1.206	8	7.77	
145	8/8/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	27.81	0.61	8.5	108.6	1.23	3.6	8.07	1.4
145	8/8/18 8:21 AM	B	CHARLES RIVER	MID-BASIN		0.98	0.98	0.98	26.57	0.62	7.14	89.3	1.24	6.5	7.89	
145	8/9/18 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04								
145	8/27/18 8:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.69	0.38	9.31	110.1	0.784	5.8	8.14	1.2
145	8/27/18 8:23 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	23.29	0.43	5.73	67.3	0.874	9.3	7.73	
145	8/28/18 9:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.85	0.37	8.32	100.7	0.754	4	7.13	1.5
145	8/28/18 9:33 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	24.37	0.38	6.78	81.2	0.789	5	7.04	
145	8/29/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.45	0.43	9.63	117.8	0.876	3.9	8.2	1.4
145	8/29/18 7:43 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	24.04	0.48	5.63	67.1	0.979	10.7	7.85	
145	8/30/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.77	0.43	8.29	102	0.885	4.5	7.96	1
145	8/30/18 7:57 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	19.17	0.85	4.07	44.2	1.666	8.6	7.56	
145	8/31/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.3	0.47	7.17	87.4	0.954	4.2	7.62	1.5
145	8/31/18 7:38 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.26	0.46	6	73.1	0.935	5	7.53	
145	9/18/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	22.36	0.37	6.41	73.9	0.762	7.18	7.18	
145	9/19/18 9:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	21.72	0.31	6.84	77.9	0.631	9.3	7.34	1
145	9/19/18 9:02 AM	B	CHARLES RIVER	MID-BASIN		0	1.15	1.15	21.67	0.3	6.03	68.6	0.613	11.7	7.26	
145	9/20/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	20.78	0.43	7.22	80.8	0.865	6	7.27	1
145	9/20/18 8:51 AM	B	CHARLES RIVER	MID-BASIN		0	0	1.15	20.73	0.42	6.92	77.4	0.861	11.8	7.23	
145	9/21/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.54	0.29	6.98	77.7	0.594	4.9	7.34	0.8
145	9/21/18 7:48 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	20.01	0.38	6.12	67.5	0.775	5.6	7.2	
145	9/22/18 5:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03								
145	9/23/18 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03								
145	10/9/18 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.71	0.23	8.43	86.8	0.466	5.1	7.4	0.7
145	10/9/18 8:19 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.1	16.63	0.39	5.67	58.3	0.798	8.4	7.1	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
145	10/10/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.54	0.23	8.89	93.2	0.465	4.4	7.24	0.9
145	10/10/18 7:48 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	17.13	0.64	5.22	54.4	1.267	9.9	6.91	
145	10/11/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	18.33	0.22	8.88	94.6	0.457	4.4	7.17	
145	10/12/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	18.18	0.22	8.26	87.7	0.447	8.3	7.21	
145	10/13/18 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82								
145	10/14/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22								
145	10/15/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	14.74	0.22	8.37	82.7	0.458	1.4	7.24	
145	10/16/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	13.36	0.23	9.94	95.2	0.477	6.8	7.25	
145	10/26/18 9:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	8.66	0.27	10.42	89.6	0.553	5.2	7.64	1
145	10/26/18 9:09 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.04	8.61	0.27	10.36	88.9	0.563	5.7	7.5	
145	10/27/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17								
145	10/28/18 6:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2								
145	10/29/18 8:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.95	0.24	8.77	77.7	0.484	9.6	7.38	0.5
145	10/29/18 8:56 AM	B	CHARLES RIVER	MID-BASIN		0.52	0.55	1.72	9.38	0.26	7.93	69.3	0.533		7.18	
145	10/30/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.01	0.25	10.07	87.3	0.512	7	7.37	0.7
145	10/30/18 9:12 AM	B	CHARLES RIVER	MID-BASIN		0	0.52	0.55	8.96	0.25	10.05	87	0.512	20.8	7.29	
145	10/31/18 9:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	9.02	0.23	9.3	80.6	0.472	10.6	7.34	0.6
145	10/31/18 9:21 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.52	8.8	0.23	9.45	81.4	0.48	13.4	7.26	
145	11/10/18 6:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55								
145	11/11/18 6:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55								
145	11/12/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45								
145	11/13/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1								
145	11/14/18 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1								
008	4/9/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.63	0.39	11.09	90.8	0.785	1.4	7.54	1.3
008	4/9/18 8:00 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.01	6.55	0.38	11.2	91.4	0.78	6.6	7.46	
008	4/10/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.13	0.38	11.39	94.3	0.782	0.3	7.82	1.3
008	4/10/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0	7.14	8.91	7.66	67.1	15.35	2.6	6.95	
008	4/11/18 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.19	0.35	11.63	96.5	0.714	2.8	7.82	1.4
008	4/11/18 8:21 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	7.28	0.46	10.85	90.2	0.938	7.5	7.6	
008	5/23/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.51	0.38	6.3	67.4	0.776	4.6	7.17	1.1
008	5/23/18 7:43 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.02	0.05	0.05	18.12	0.53	5.04	53.5	1.068	9	7.09	
008	5/24/18 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.84	0.37	7.02	77.2	0.749	3.6	7.49	0.9
008	5/24/18 8:06 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0.02	0.05	18.61	0.38	5.65	60.5	0.767	4.2	7.35	
008	5/25/18 8:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.61	0.39	6.88	75.2	0.794	4.2	7.23	1
008	5/25/18 8:07 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0.02	18.64	0.66	4.86	52.2	1.317	3.1	7.07	
008	5/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19.14	0.4	6.92	74.9	0.815	4.1	7.36	1
008	5/29/18 7:39 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0.06	0.08	18.69	0.45	6.7	72	0.916	9.4	7.32	
008	5/30/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.72	0.41	6.57	73.5	0.833	6.2	7.49	0.8
008	5/30/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0	0.06	19.1	0.46	5.64	61.1	0.925	7.8	7.38	
008	5/31/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.9	0.41	7.57	85	0.829	5	7.39	0.8
008	5/31/18 7:35 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0	19.11	0.59	5.64	61.1	1.182	9	7.26	
008	6/25/18 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.67	0.57	7.02	81.6	1.156	5.8	7.54	0.8
008	6/25/18 8:02 AM	B	CHARLES RIVER	MID-BASIN	3.5	0.33	0.59	0.59	21.73	0.71	5.66	64.6	1.423	5.8	7.39	
008	6/26/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.44	0.62	7.9	91.5	1.252	7	7.55	1.1
008	6/26/18 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0.33	0.59	22.02	0.93	5.9	67.8	1.827	5.7	7.4	
008	6/27/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.2	0.65	8.06	92.8	1.296	6.3	7.54	1
008	6/27/18 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.09	0.09	0.42	21.44	2.09	4.06	46.4	3.941	4.7	7.17	
008	6/29/18 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.65	0.46	6.65	77.2	0.929	7.2	7.64	0.7
008	6/29/18 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	1.16	1.25	21.56	1.27	4.7	53.6	2.462	7	7.33	
008	7/2/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.94	0.49	8.18	100.9	0.992	3.6	7.54	0.9
008	7/2/18 7:36 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	22.35	0.84	4.8	55.5	1.66	9.6	7.27	
008	7/3/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.71	0.49	8.55	107	0.992	7.2	7.56	1
008	7/3/18 7:45 AM	B	CHARLES RIVER	MID-BASIN	3.2	0.01	0.01	0.01	23.18	0.74	5.16	60.6	1.467	6.6	7.37	
008	7/18/18 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	25.8	0.47	6.64	81.7	0.949	6.4	7.67	0.6
008	7/18/18 7:32 AM	B	CHARLES RIVER	MID-BASIN	3.4	0.06	2.74	2.74	24.85	0.43	4.92	59.5	0.886	10.3	7.53	
008	7/19/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.37	0.45	6.12	74.8	0.919		7.41	0.8
008	7/19/18 7:29 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0.06	2.74	25.09	0.84	2.66	32.4	1.662		7.16	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
008	7/20/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.49	0.5	7.7	94.3	1.009	5.6	7.65	1
008	7/20/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0.06	23.4	5.6	2.36	28.6	9.937	8	7.13	
008	7/21/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1
008	7/21/18 7:30 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0								
008	8/6/18 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.35	0.64	9.44	119.7	1.295	4.6	8.2	1.1
008	8/6/18 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0.64	25.87	0.94	3.27	40.5	1.857	3.6	7.52	
008	8/7/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	27.09	0.59	8.85	111.7	1.203	6.1	8.2	1.3
008	8/7/18 7:14 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	26.25	0.81	5.33	66.3	1.608	8.3	7.77	
008	8/8/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	28.15	0.64	9.12	117.2	1.29	3.5	8.45	1.3
008	8/8/18 8:08 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.98	0.98	0.98	25.7	1.02	2.77	34.1	2.01	6.3	7.78	
008	8/27/18 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.01	0.43	9.87	117.6	0.876	4.1	8.24	1.4
008	8/27/18 8:12 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	23.08	0.51	5.67	66.4	1.029	9.8	7.85	
008	8/28/18 9:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.98	0.42	8.81	106.9	0.861	3.3	7.51	1.2
008	8/28/18 9:42 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	23.27	0.59	4.02	47.2	1.185	8.9	7.26	
008	8/29/18 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.58	0.42	9.86	120.9	0.866	4.2	8.38	1
008	8/29/18 7:31 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0	0	24.75	0.45	7.58	91.5	0.916	9.6	7.98	
008	8/30/18 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.16	0.44	9.01	111.6	0.907	4.2	8.34	1.1
008	8/30/18 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	24.34	0.53	5.15	61.7	1.072	10.1	7.83	
008	8/31/18 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.59	0.46	8.12	99.6	0.941	4.5	7.76	1.1
008	8/31/18 7:29 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	25.4	0.45	7.91	96.7	0.925	8	7.71	
008	9/19/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	21.93	0.35	6.95	79.6	0.717	8.3	7.43	1.2
008	9/19/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	2.5	0	1.15	1.15	21.89	0.41	5.68	65	0.841	11.5	7.28	
008	9/20/18 8:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	21.07	0.44	6.88	77.5	0.886	6.1	7.27	1.3
008	9/20/18 8:43 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	1.15	21.07	0.43	6.58	74.1	0.88		7.21	
008	9/21/18 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.78	0.34	6.84	76.5	0.696	5	7.48	1.1
008	9/21/18 7:37 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	20.75	0.34	6.53	73	0.703	9.7	7.4	
008	10/9/18 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.7	0.22	8.43	86.8	0.461	4.9	7.62	0.8
008	10/9/18 8:11 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.1	16.54	0.23	8.25	84.7	0.481	8.7	7.49	
008	10/10/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.44	0.22	8.71	91	0.464	4.8	7.48	0.8
008	10/10/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	17.23	0.26	8.09	84.2	0.539	8.7	7.34	
008	10/26/18 8:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	9.31	0.31	10.05	87.8	0.63	4.8	7.65	0.8
008	10/26/18 8:59 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0.04	9.26	0.31	9.93	86.6	0.641	8.2	7.52	
008	10/29/18 8:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.33	0.29	8.89	77.6	0.591	5.6	7.63	0.7
008	10/29/18 8:47 AM	B	CHARLES RIVER	MID-BASIN	3.8	0.52	0.55	1.72	9.24	0.34	9.2	80.2	0.7	12	7.46	
008	10/30/18 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.03	0.26	9.78	84.8	0.538	6.5	7.52	0.6
008	10/30/18 9:00 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.52	0.55	9.01	0.26	9.8	84.9	0.536	9.3	7.36	
008	10/31/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	9.08	0.25	9.45	82	0.52	8	7.49	0.7
008	10/31/18 9:12 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0	0.52	8.81	0.27	9.35	80.6	0.556	8.7	7.37	
009	3/2/18 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31								
009	3/3/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3								
009	3/4/18 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3								
009	3/5/18 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	5.15	0.36	12.23	96.3	0.73	5.1	7.22	
009	3/5/18 8:29 AM	B	CHARLES RIVER	MID-BASIN	0.05	0.05	0.05	0.05	5.16	0.36	11.92	94	0.73	5.6	7.04	
009	3/6/18 8:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	4.8	0.34	13.79	107.6	0.695	4.7		
009	3/6/18 8:57 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.05	0.05	4.82	0.34	12.39	96.8	0.695	5.3		
009	3/7/18 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	4.61	0.33	12.23	95	0.678	3.5	7.48	
009	3/7/18 8:31 AM	B	CHARLES RIVER	MID-BASIN		0.55	0.55	0.6	4.62	0.33	12.08	93.9	0.681	9.8	7.3	
009	4/4/18 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	8.32	0.43	11.25	96	0.864	0	7.48	
009	4/4/18 8:22 AM	B	CHARLES RIVER	MID-BASIN		0.2	0.67	0.78	8.26	0.45	11	93.8	0.912	6.5	7.39	
009	4/5/18 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	7.26	0.45	14.32	119	0.911	4.1	7.88	
009	4/5/18 8:08 AM	B	CHARLES RIVER	MID-BASIN		0	0.2	0.67	7.28	0.45	12.52	104.2	0.912	3.9	7.63	
009	4/6/18 7:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	6.77	0.51	12.37	101.6	1.033	2.8	7.19	
009	4/9/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.43	0.42	11.35	92.4	0.848	1.2	7.64	1.1
009	4/9/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0.01	9.43	21.74	0.82	8.2	34.74	5.7	7.02	
009	4/10/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	7.1	0.4	11.22	92.9	0.817	0.5	7.94	1.3
009	4/10/18 7:57 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	10.44	22.19	5.46	56.3	35.32	0.9	6.98	
009	4/11/18 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	6.88	0.38	11.74	96.7	0.778	3.1	7.83	1.5

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
009	4/11/18 8:15 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	10.41	22.47	4.08	42.1	35.73	6	7.01	
009	4/13/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	8.04	0.38	11.42	96.8	0.78	0.3	7.39	
009	4/17/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	7.64	0.37	11.29	94.7	0.75	9.8	6.75	
009	4/17/18 7:21 AM	B	CHARLES RIVER	MID-BASIN	0	0	1.57	1.61	7.64	0.37	10.85	91	0.75	21.2	6.68	
009	4/18/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	7.41	0.28	12.68	105.7	0.577	15.1	7.46	
009	4/18/18 7:15 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	1.57	7.37	0.28	11.97	99.7	0.577	20.1	7.23	
009	4/19/18 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	8.19	0.3	11.34	96.4	0.62		7.41	
009	4/19/18 7:30 AM	B	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	8.13	0.3	11.06	93.9	0.621		7.35	
009	4/20/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	8.05	0.31	12.15	102.9	0.635	8.6	7.05	
009	4/20/18 7:17 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.23	0.23	8.04	0.31	11.59	98.1	0.636	8.9	6.94	
009	4/21/18 6:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23								
009	5/23/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.42	0.37	6.56	70	0.763	4.4	7.15	1.3
009	5/23/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.02	0.05	0.05	10.28	22.03	1.13	11.6	35.1	20.9	7.04	
009	5/24/18 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.76	0.38	7.37	80.9	0.777	3.6	7.47	1
009	5/24/18 8:00 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.02	0.05	10.27	22.04	0.35	3.6	35.11	1.7	7.08	
009	5/25/18 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.28	0.41	7.3	79.4	0.826	4.1	7.27	1.1
009	5/25/18 7:56 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.02	10.29	22.04	0.48	4.9	35.11	1.7	7.04	
009	5/29/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	18.77	0.45	6.92	74.4	0.916	4.3	7.38	1.2
009	5/29/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.06	0.08	10.31	22.05	0.24	2.5	35.12	1.9	7.08	
009	5/30/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.53	0.41	6.59	73.4	0.839	6.4	7.44	0.8
009	5/30/18 7:21 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0.06	10.26	22.03	1.8	18.5	35.1	4.7	7.01	
009	5/31/18 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.47	0.44	7.26	80.8	0.892	4.7	7.38	1.1
009	5/31/18 7:25 AM	B	CHARLES RIVER	MID-BASIN	7.6	0	0	0	10.13	21.75	1.41	14.4	34.7	7.6	7.08	
009	6/25/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.67	0.6	7.48	87	1.201	5.5	7.53	0.9
009	6/25/18 7:55 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.33	0.59	0.59	10.6	21.49	0.57	5.9	34.3	0	7.03	
009	6/26/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.14	0.67	7.91	91	1.346	4.7	7.56	1.5
009	6/26/18 7:48 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0.33	0.59	10.53	21.9	0.79	8.1	34.9	3.6	7.05	
009	6/27/18 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.64	0.66	8.5	98.8	1.318	7.1	7.54	1
009	6/27/18 7:35 AM	B	CHARLES RIVER	MID-BASIN	7.8	0.09	0.09	0.42	10.68	21.95	1.03	10.7	34.96	3.2	6.99	
009	6/28/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.16	1.25	1.25	22.34	0.68	8.61	99.5	1.365		7.45	
009	6/28/18 7:42 AM	B	CHARLES RIVER	MID-BASIN		1.16	1.25	1.25	22.34	0.7	8	92.5	1.398		7.45	
009	6/29/18 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.59	0.62	8.27	96	1.239	6	7.69	1.1
009	6/29/18 7:52 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	1.16	1.25	10.55	21.91	0.53	5.5	34.92	3.5	7.06	
009	6/30/18 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16								
009	7/2/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.31	0.53	8.81	107.5	1.075	8.4	7.56	1
009	7/2/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0	0	10.8	21.95	4.12	42.7	34.95	8.7	6.9	
009	7/3/18 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.12	0.52	8.73	108.1	1.063	6.6	7.62	1.1
009	7/3/18 7:33 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.01	0.01	0.01	10.63	22.11	2.68	27.7	35.19	5.9	6.99	
009	7/18/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	25.85	0.64	6.8	83.9	1.296	4.9	7.59	0.9
009	7/18/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.06	2.74	2.74	10.95	22.02	2.61	27.2	35.05	6.4	6.97	
009	7/19/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.86	0.61	7.48	92.3	1.233		7.58	1.1
009	7/19/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0.06	2.74	10.91	22.1	0.75	7.9	35.18		6.91	
009	7/20/18 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.09	0.59	7.57	92.1	1.181	4.2	7.63	1.5
009	7/20/18 7:24 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.06	11.17	21.97	2.39	25	34.97	7.2	6.96	
009	7/21/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1.5
009	7/21/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0								
009	7/22/18 6:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17								
009	8/6/18 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.28	0.59	9.03	114.3	1.195	3.6	8.05	1.1
009	8/6/18 7:38 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.64	11.59	21.84	0.98	10.3	34.77		7.07	
009	8/7/18 7:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	27.83	0.61	9.96	127.3	1.241	4.2	8.5	1
009	8/7/18 7:07 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	11.45	21.95	3.12	32.8	34.93	8.3	7.15	
009	8/8/18 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	28.17	0.65	9.34	120.1	1.31	4	8.45	1.4
009	8/8/18 7:59 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.98	0.98	0.98	11.53	21.88	0.19	2	34.82		7.01	
009	8/9/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04								
009	8/27/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.15	0.46	10.2	121.8	0.935	4.5	8.36	1.4
009	8/27/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0	11.78	21.92	2.35	24.9	34.87	7.3	7.08	
009	8/28/18 9:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.32	0.41	9.94	121.3	0.834	4.3	7.8	1.3

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
009	8/28/18 9:47 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0	12.31	21.82	1.93	20.7	34.71	3.5	6.86	
009	8/29/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.77	0.43	10.16	125.1	0.888	4.1	8.48	1.4
009	8/29/18 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	11.9	21.89	2.98	31.6	34.83	12.4	7.13	
009	8/30/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.39	0.44	9.16	114	0.896	4.6	8.37	1.1
009	8/30/18 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	12.26	21.91	3.67	39.4	34.84	8.7	7.11	
009	8/31/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.62	0.48	8.23	101	0.968	4.6	7.68	1.2
009	8/31/18 7:22 AM	B	CHARLES RIVER	MID-BASIN	6.9	0	0	0	15.42	20.79	1.94	22.1	33.14	6.8	6.93	
009	9/18/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	22.69	0.48	9.2	106.9	0.979		7.16	
009	9/18/18 7:14 AM	B	CHARLES RIVER	MID-BASIN		1.15	1.15	1.15	22.28	0.81	8.32		1.609		7.06	
009	9/19/18 8:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	22.05	0.48	8.24	94.6	0.967	6.6	7.38	1.3
009	9/19/18 8:44 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	1.15	1.15	12.46	21.7	2.57	27.6	34.53	8.9	6.65	
009	9/20/18 8:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	21.13	0.45	7	78.9	0.908	6.2	7.15	1
009	9/20/18 8:38 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	1.15	12.33	20.44	1.04	11.1	32.7	2.8	6.56	
009	9/21/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.91	0.44	7.26	81.5	0.884	5.5	7.32	1.3
009	9/21/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	13	21.98	0.49	5.3	34.91		6.76	
009	9/22/18 5:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03								
009	9/23/18 6:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03								
009	10/9/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.74	0.25	8.63	89	0.515	4.6	7.23	1.1
009	10/9/18 8:05 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0.1	13.09		1.35	14.7		9	6.33	
009	10/10/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.49	0.24	8.75	91.5	0.502	4.6	7.18	1
009	10/10/18 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0	13.1	22.03	2.15	23.5	34.98	6.5	6.25	
009	10/11/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	18.39	0.24	8.4	89.6	0.506	3.9	7.27	
009	10/11/18 7:43 AM	B	CHARLES RIVER	MID-BASIN		0.6	0.6	0.6	17.91	0.37	7.98	84.3	0.752	6.5	7.1	
009	10/12/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	17.95	0.24	9.31	98.3	0.504	9.6	7.43	
009	10/12/18 7:43 AM	B	CHARLES RIVER	MID-BASIN		0.09	0.69	0.69	18	0.25	8.5	90	0.506	9.5	7.27	
009	10/13/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82								
009	10/14/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22								
009	10/15/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	15.67	0.26	8.22	82.8	0.527	2.3	7.21	
009	10/16/18 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	15.07	0.29	9.7	96.5	0.593	5.6	7.17	
009	10/16/18 8:24 AM	B	CHARLES RIVER	MID-BASIN		0.03	0.1	0.1	15.07	0.29	8.81	87.6	0.593	10.6	7.15	
009	10/26/18 8:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	9.25	0.3	10.2	88.9	0.624	4.8	7.59	0.9
009	10/26/18 8:52 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0.04	13.49	22.12	0.52	5.7	35.1	5.9	6.62	
009	10/27/18 6:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17								
009	10/28/18 6:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2								
009	10/29/18 8:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.28	0.32	9.79	85.4	0.647	4.8	7.46	0.7
009	10/29/18 8:41 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.52	0.55	1.72	13.54	22.4	0.88	9.7	35.51	6.9	7.02	
009	10/30/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.24	0.3	9.9	86.3	0.609	6.3	7.49	0.6
009	10/30/18 8:51 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.52	0.55	13.71	22.07	2.44	26.9	35.03	5.4	6.33	
009	10/31/18 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	9.01	0.27	9.67	83.8	0.553	7.9	7.41	0.9
009	10/31/18 9:00 AM	B	CHARLES RIVER	MID-BASIN	6	0	0	0.52	16.3	22.19	6.13	71.6	35.15	10.2	6.95	
009	11/10/18 6:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55								
009	11/11/18 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55								
009	11/12/18 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45								
009	11/13/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1								
009	11/14/18 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1								
010	4/9/18 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.67	0.45	11.5	94.2	0.911	1	7.43	1.4
010	4/9/18 7:45 AM	B	CHARLES RIVER	MID-BASIN	7.4	0	0	0.01	5.22	23.77	3.15	29	38.08	1.9	7.25	
010	4/10/18 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	6.9	0.41	11.66	96	0.827	0.6	7.75	1.4
010	4/10/18 7:50 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0	0	5.46	22.96	2.92	26.9	36.86	0	7.16	
010	4/11/18 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	6.89	0.4	11.87	97.8	0.822	3.3	7.65	1.3
010	4/11/18 8:09 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	5.23	24.64	7.51	69.7	39.35	6.4	6.82	
010	5/23/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.81	0.39	6.7	72.1	0.802	4	7.03	1
010	5/23/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	7.8	0.02	0.05	0.05	6.96	23.25	3.69	35.4	37.12	0.3	6.94	
010	5/24/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.58	0.39	7.32	80	0.788	3.6	7.29	1
010	5/24/18 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0.02	0.05	7.84	23	0.24	2.4	36.68	8.7	7.2	
010	5/25/18 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.41	0.4	7.45	81.2	0.814	4.5	7.21	0.9
010	5/25/18 7:47 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.02	6.67	22.39	0.85	8.1	35.9	0.3	7.17	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
010	5/29/18 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19	0.48	6.88	74.4	0.978	4.3	7.28	1
010	5/29/18 7:20 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0.06	0.08	7.58	23.71	2.22	21.7	37.74		7.17	
010	5/30/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	20.2	0.44	6.69	74.1	0.887	6.2	7.19	0.9
010	5/30/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.06	6.92	23.99	3.72	35.8	38.21	12.3	7.05	
010	5/31/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.38	0.46	7.27	80.7	0.924	4.4	7.24	0.9
010	5/31/18 7:17 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	6.88	23.93	1.83	17.6	38.12	9.9	7.26	
010	6/25/18 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.58	0.69	7.72	89.7	1.376	5.7	7.39	1
010	6/25/18 7:48 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.33	0.59	0.59	8.42	23.72	2.77	27.5	37.68	0	7.13	
010	6/26/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.15	0.67	7.83	90.2	1.345	5	7.45	1
010	6/26/18 7:41 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0.33	0.59	8.77	23.68	3.51	35.2	37.59	4.5	7.08	
010	6/27/18 10:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.68	0.68	8.9	103.5	1.35	6.1	7.69	0.9
010	6/27/18 10:17 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.09	0.09	0.42	8.59		1.99	19.8		1.1	7.18	
010	6/29/18 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.62	0.63	8.21	95.4	1.256	7	7.67	1
010	6/29/18 7:44 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	1.16	1.25	19.39	10.44	4.1	47.4	17.63		7.08	
010	7/2/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.15	0.52	8.52	103.7	1.053	5.9	7.48	1.1
010	7/2/18 7:19 AM	B	CHARLES RIVER	MID-BASIN	5.8	0	0	0	17.01	19.13	3.37	39.1	30.71	11.6	6.76	
010	7/3/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	26.09	0.53	8.74	108.2	1.071	5.6	7.46	1.3
010	7/3/18 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.01	0.01	0.01	9.43	23.95	2.05	20.8	37.93	9.1	7.14	
010	7/18/18 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	26.09	0.69	7.6	94.2	1.388	3.5	7.57	1.2
010	7/18/18 7:18 AM	B	CHARLES RIVER	MID-BASIN	7.5	0.06	2.74	2.74	12.39	22.63	2.15	23.1	35.88	5.2	7.07	
010	7/19/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.78	0.68	7.48	92.2	1.357		7.44	1.2
010	7/19/18 7:16 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0.06	2.74	15.02	22.3	1.54	17.5	35.32		7.02	
010	7/20/18 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.2	0.65	7.54	91.9	1.311	6.4	7.47	1.3
010	7/20/18 7:17 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.06	14.11	24.24	3.88	43.8	38.13		7.08	
010	7/21/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								1.5
010	7/21/18 7:16 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0								
010	8/6/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.25	0.64	9.42	119.1	1.299	4.6	8.09	1.3
010	8/6/18 7:28 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.64	14.59	24.53	0.89	10.2	38.54	8.3	7.3	
010	8/7/18 7:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	28.1	0.64	10.05	129	1.289	4	8.44	1.2
010	8/7/18 7:00 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	14.1	24.52	3.11	35.2	38.54	6.6	7.44	
010	8/8/18 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	28.32	0.67	9.49	122.3	1.35	3.9	8.44	1.5
010	8/8/18 7:51 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.98	0.98	0.98	14.66	24.34	4.05	46.2	38.26	11.4	7.31	
010	8/27/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.2	0.47	10.41	124.5	0.96	4.8	8.36	1.3
010	8/27/18 7:58 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0	0	24.07	0.48	9.53	113.7	0.974	8.7	8.22	
010	8/28/18 9:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.59	0.44	9.52	116.7	0.894	3.9	7.96	1.7
010	8/28/18 9:52 AM	B	CHARLES RIVER	MID-BASIN	8.9	0	0	0	14.18	24.32	0.42	4.7	38.25	8.1	7.05	
010	8/29/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.81	0.44	10.15	125	0.891	3.9	8.41	1.5
010	8/29/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0	0	13.82	23.48	1.44	16.1	37.05	1.5	7.18	
010	8/30/18 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.66	0.45	9.46	118.2	0.92	4.3	8.43	1.1
010	8/30/18 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	14.82	24.37	2.95	33.8	38.3	9.4	7.37	
010	8/31/18 7:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.63	0.48	8.19	100.5	0.982	4.4	7.56	1.4
010	8/31/18 7:13 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0	19.24	23.53	2.07	25.8	37.07	6.7	6.93	
010	9/19/18 8:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	22.12	0.48	8.45	97.1	0.979	6.3	7.26	1.3
010	9/19/18 8:38 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	1.15	1.15	17.98	25.98	2.64	32.6	40.55	5.3	6.59	
010	9/20/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	21.27	0.48	7.51	84.9	0.969	6.5	6.98	1.1
010	9/20/18 8:33 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	1.15	18.82	24.66	3.31	41.1	38.68	4.2	6.22	
010	9/21/18 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.89	0.45	7.07	79.3	0.905	5.3	7	1.2
010	9/21/18 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	17.49	25.93	1.25	15.3	40.47	2.3	6.53	
010	10/9/18 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.77	0.26	8.3	85.6	0.532	4.8	7.12	0.8
010	10/9/18 7:58 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	0	0.1	17.02	0.78	6.87	71.5	1.532	6.2	7.02	
010	10/10/18 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.44	0.25	8.84	92.4	0.506	4.6	6.83	1
010	10/10/18 7:26 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0	0	17.53	26.06	1.38	16.8	40.65	0.7	6.12	
010	10/26/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	9.41	0.31	10.49	91.8	0.641	5	7.15	0.8
010	10/26/18 8:45 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0.04	16.83	25.66	0.71	8.5	40.1	4.7	6.49	
010	10/29/18 8:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.23	0.31	9.77	85.1	0.643	5.9	7.41	0.9
010	10/29/18 8:36 AM	B	CHARLES RIVER	MID-BASIN	7.2	0.52	0.55	1.72	16.65	24.97	5.01	59.8	39.12	3	7.07	
010	10/30/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.13	0.31	10.03	87.2	0.64	5.9	6.86	0.8

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
010	10/30/18 8:45 AM	B	CHARLES RIVER	MID-BASIN	7.6	0	0.52	0.55	16.86	25.65	2.24	27	40.08	10.2	6.14	1
010	10/31/18 9:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	8.96	0.29	9.75	84.4	0.593	9.8	7.33	
010	10/31/18 9:01 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0.52	16.7	26.14	5.33	64.1	40.77	9.5	6.96	
210	3/2/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.3	2.3	2.31								
210	3/3/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	2.3	2.3								
210	3/4/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	2.3								
210	3/5/18 9:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	5.27	0.36	12.51	98.9	0.731	4.6	7	
210	3/5/18 9:12 AM	B	CHARLES RIVER	MID-BASIN		0.05	0.05	0.05	5.29	0.36	12.16	96.2	0.744	6	7	
210	3/6/18 9:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	4.82	0.35	12.64	98.7	0.71	4.8		
210	3/6/18 9:45 AM	B	CHARLES RIVER	MID-BASIN		0	0.05	0.05	4.83	0.35	12.29	96	0.712	5.1		
210	3/7/18 9:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	0.55	0.6	4.64	0.35	12.57	97.7	0.713	3.9	7.12	
210	3/7/18 9:17 AM	B	CHARLES RIVER	MID-BASIN		0.55	0.55	0.6	4.66	0.35	12.36	96.1	0.714	4	7.15	
210	4/4/18 9:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.2	0.67	0.78	8.21	0.43	11.37	96.7	0.863	0	7.09	
210	4/4/18 9:04 AM	B	CHARLES RIVER	MID-BASIN		0.2	0.67	0.78	8.22	0.43	11.23	95.5	0.874	7.3	7.1	
210	4/5/18 8:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.2	0.67	7.98	0.49	12.26	103.8	0.994	3.3	7.65	
210	4/5/18 8:46 AM	B	CHARLES RIVER	MID-BASIN		0	0.2	0.67	7.86	0.5	11.64	98.3	1.006	4.4	7.53	
210	4/6/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.21	0.21	0.41	7.24	0.55	12.06	100.3	1.111	2.3	6.74	
210	4/9/18 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	6.61	0.45	11.49	94	0.907	4.3	7.57	1.5
210	4/9/18 7:41 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.01	6.62	0.45	11.4	93.3	0.908	1.1	7.53	
210	4/10/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	6.88	0.42	11.65	96	0.845	0.6	7.89	1.3
210	4/10/18 7:46 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	6.86	0.42	11.63	95.7	0.845	0.6	7.81	
210	4/11/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	6.89	0.41	11.83	97.4	0.833	3.8	7.74	1.3
210	4/11/18 8:05 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	6.78	0.41	11.79	96.8	0.837	9.7	7.67	
210	4/13/18 6:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.06	8.15	0.39	11.31	96.1	0.788	0.2	6.72	
210	4/17/18 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.57	1.61	7.89	0.38	11.17	94.3	0.771	2.3	7.23	
210	4/17/18 8:04 AM	B	CHARLES RIVER	MID-BASIN		0	1.57	1.61	7.87	0.38	10.89	91.9	0.773	9.9	7.12	
210	4/18/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.57	7.59	0.33	12.01	100.6	0.677	16.3	7.21	
210	4/18/18 7:55 AM	B	CHARLES RIVER	MID-BASIN		0	0	1.57	7.62	0.33	11.42	95.7	0.684	18.2	7.15	
210	4/19/18 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.23	0.23	0.23	7.83	0.33	11.73	98.8	0.665		7.25	
210	4/19/18 8:09 AM	B	CHARLES RIVER	MID-BASIN		0.23	0.23	0.23	7.89	0.33	10.94	92.3	0.668		7.24	
210	4/20/18 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.23	0.23	8.02	0.3	11.88	100.6	0.619	9.6	7.13	
210	4/20/18 8:05 AM	B	CHARLES RIVER	MID-BASIN		0	0.23	0.23	8.01	0.3	11.35	96	0.621	10.7	7.14	
210	4/21/18 6:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.23								
210	5/23/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.02	0.05	0.05	18.92	0.39	6.38	68.8	0.799	4.8	7.02	1.1
210	5/23/18 7:21 AM	B	CHARLES RIVER	MID-BASIN		0.02	0.05	0.05	18.57	0.4	6.29	67.4	0.822	8.7	7.07	
210	5/24/18 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.02	0.05	19.44	0.39	7.31	79.7	0.79	3.6	7.32	1
210	5/24/18 7:42 AM	B	CHARLES RIVER	MID-BASIN		0	0.02	0.05	18.29	0.53	5.52	58.8	1.067	3.9	7.2	
210	5/25/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.02	19.35	0.41	7.67	83.5	0.841	6.9	7.3	0.9
210	5/25/18 7:43 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.02	19.19	0.42	7.22	78.3	0.843	4.5	7.25	
210	5/29/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.08	19.08	0.49	6.91	74.8	0.99	4.5	7.3	1.1
210	5/29/18 7:15 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	0.08	18.79	0.51	6.53	70.3	1.023	8.9	7.26	
210	5/30/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	19.89	0.46	6.7	73.7	0.925	6.1	7.23	1
210	5/30/18 7:10 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	19.86	0.46	6.74	74.1	0.928	6.8	7.24	
210	5/31/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.34	0.46	7.22	80.1	0.927	4.5	7.25	1.1
210	5/31/18 7:14 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	19.63	0.49	6.37	69.7	0.984	8.7	7.22	
210	6/25/18 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.33	0.59	0.59	22.57	0.7	7.61	88.3	1.399	5	7.41	1.1
210	6/25/18 7:43 AM	B	CHARLES RIVER	MID-BASIN		0.33	0.59	0.59	22.47	0.7	7.26	84.2	1.404	6.3	7.38	
210	6/26/18 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.33	0.59	22.24	0.7	8.05	92.8	1.404	4.1	7.44	1.3
210	6/26/18 7:36 AM	B	CHARLES RIVER	MID-BASIN		0	0.33	0.59	22.12	0.71	7.41	85.3	1.417	12.6	7.43	
210	6/27/18 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.09	0.42	22.62	0.68	8.61	100	1.364	7.1	7.55	1.1
210	6/27/18 7:27 AM	B	CHARLES RIVER	MID-BASIN		0.09	0.09	0.42	22.56	0.68	8.5	98.6	1.366	6.7	7.56	
210	6/28/18 8:25 AM	S	CHARLES RIVER	MID-BASIN		1.16	1.25	1.25	22.45	0.71	8.91	103.1	1.414		7.54	
210	6/28/18 8:25 AM	B	CHARLES RIVER	MID-BASIN		1.16	1.25	1.25	22.46	0.71	8.9	103.1	1.414		7.6	
210	6/29/18 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.16	1.25	22.78	0.67	9	104.9	1.346	7.1	7.75	1
210	6/29/18 7:39 AM	B	CHARLES RIVER	MID-BASIN		0	1.16	1.25	22.38	0.66	8.45	97.7	1.325	8.7	7.74	
210	6/30/18 7:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.16								
210	7/1/18 5:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
210	7/2/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.97	0.53	8.47	102.7	1.065	8.2	7.49	1.1
210	7/2/18 7:16 AM	B	CHARLES RIVER	MID-BASIN		0	0		22.98	0.71	6.31	73.8	1.424	8.7	7.37	
210	7/3/18 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	25.98	0.54	8.68	107.2	1.085	6.1	7.44	1.2
210	7/3/18 7:21 AM	B	CHARLES RIVER	MID-BASIN		0.01	0.01	0.01	25.54	0.55	7.89	96.7	1.112	8.9	7.41	
210	7/18/18 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	2.74	2.74	26.13	0.69	7.49	92.9	1.394	5.1	7.54	1.5
210	7/18/18 7:15 AM	B	CHARLES RIVER	MID-BASIN		0.06	2.74	2.74	26.13	0.71	7.29	90.4	1.424	4.6	7.53	
210	7/19/18 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	2.74	25.77	0.69	7.31	90.1	1.379		7.49	1.5
210	7/19/18 7:11 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	2.74	25.81	0.79	6.7	82.7	1.583		7.42	
210	7/20/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.06	25.27	0.67	7.2	87.9	1.34	5.2	7.46	2
210	7/20/18 7:14 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.06	25.24	0.75	7.15	87.3	1.506	5.2	7.43	
210	7/21/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								2
210	7/22/18 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.17	0.17	0.17								
210	8/6/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.64	27.21	0.66	9.62	121.6	1.331	4.6	8.18	1.4
210	8/6/18 7:23 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.64	27.24	0.73	8.7	110.1	1.458	5	7.93	
210	8/7/18 6:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	28.11	0.65	9.77	125.5	1.303	4	8.37	1
210	8/7/18 6:55 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	28.04	0.64	9.9	127	1.298	6.1	8.42	
210	8/8/18 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.98	0.98	0.98	28.47	0.68	9	116.3	1.36	4.2	8.26	1
210	8/8/18 7:46 AM	B	CHARLES RIVER	MID-BASIN		0.98	0.98	0.98	28.16	0.68	8.92	114.8	1.37	7.4	8.27	
210	8/9/18 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	1.04	1.04								
210	8/27/18 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.4	0.47	10.14	121.7	0.95	4.5	8.23	1.3
210	8/27/18 7:54 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	24.12	0.47	9.95	118.7	0.954	10.4	8.19	
210	8/28/18 9:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.93	0.47	10.14	125.2	0.961	4	8.31	1.7
210	8/28/18 9:57 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.13	0.45	10.11	122.9	0.924	6.1	8.32	
210	8/29/18 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.07	0.44	9.3	115.1	0.902	3.7	8.1	1.5
210	8/29/18 7:08 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.73	0.44	9.72	119.4	0.903	6.9	8.2	
210	8/30/18 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	26.86	0.45	9.04	113.4	0.915	4.5	8.31	1.1
210	8/30/18 7:28 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	26.43	0.45	9.04	112.6	0.924	7.3	8.29	
210	8/31/18 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	25.58	0.48	8.27	101.4	0.976	4.3	7.53	1.5
210	8/31/18 7:10 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	25.25	0.7	6.13	74.9	1.406	6.4	7.37	
210	9/18/18 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.15	1.15	1.15	22.73	0.47	9.5	110.4	0.959		7.36	
210	9/18/18 8:14 AM	B	CHARLES RIVER	MID-BASIN		1.15	1.15	1.15	22.71	0.47	9.68	112.5	0.96		7.4	
210	9/19/18 8:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.15	1.15	22.23	0.48	8.45	97.3	0.981	7.2	7.24	1.1
210	9/19/18 8:34 AM	B	CHARLES RIVER	MID-BASIN		0	1.15	1.15	22.23	0.58	7.55	87	1.164	11.7	7.2	
210	9/20/18 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	1.15	21.29	0.51	7.54	85.3	1.037	7.1	6.93	1.4
210	9/20/18 8:30 AM	B	CHARLES RIVER	MID-BASIN		0	0	1.15	21.3	0.51	7.64	86.5	1.028	6.8	6.92	
210	9/21/18 7:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20.89	0.47	7.31	82.1	0.944	5.8	7.01	1
210	9/21/18 7:14 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	20.89	0.46	7.18	80.6	0.941	5.7	6.99	
210	9/22/18 6:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.03	0.03								
210	9/23/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.03	0.03								
210	10/9/18 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.1	16.89	0.28	8.2	84.7	0.568	4.4	7.13	0.8
210	10/9/18 7:55 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.1	16.85	0.28	8.04	83.1	0.568	8.5	7	
210	10/10/18 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	17.48	0.27	8.67	90.8	0.558	4.5	6.84	1.2
210	10/10/18 7:23 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	17.39	0.27	8.64	90.2	0.546	7.1	6.79	
210	10/11/18 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.6	0.6	0.6	18.3	0.25	8.79	93.6	0.516	3.7	7.18	
210	10/12/18 8:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.09	0.69	0.69	18.03	0.26	9.03	95.6	0.529	4.3	7.25	
210	10/13/18 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.13	0.22	0.82								
210	10/14/18 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.13	0.22								
210	10/15/18 8:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.2	15.74	0.31	8.41	84.9	0.629	1.7	7.21	
210	10/16/18 9:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	0.1	0.1	15.45	0.3	8.73	87.5	0.612	6.2	7.3	
210	10/26/18 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	9.42	0.31	10.45	91.5	0.642	4.9	7.17	1.2
210	10/26/18 8:42 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.04	9.41	0.31	10.47	91.6	0.64	7.6	7.09	
210	10/27/18 7:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.17	1.17	1.17								
210	10/28/18 6:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.03	1.2	1.2								
210	10/29/18 8:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.52	0.55	1.72	9.23	0.33	9.76	85	0.673	5.7	7.38	0.8
210	10/29/18 8:33 AM	B	CHARLES RIVER	MID-BASIN		0.52	0.55	1.72	9.28	0.35	9.79	85.5	0.712	7.3	7.31	
210	10/30/18 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.52	0.55	9.18	0.32	10.05	87.5	0.648	5.7	6.84	0.8
210	10/30/18 8:42 AM	B	CHARLES RIVER	MID-BASIN		0	0.52	0.55	9.13	0.32	10.02	87.1	0.662	6.2	6.82	

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210	10/31/18 8:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.52	9	0.29	9.74	84.4	0.601	7.1	7.35	0.7
210	10/31/18 8:58 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.52	8.98	0.29	9.66	83.7	0.602	9.4	7.3	
210	11/10/18 6:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.45	1.55	1.55								
210	11/11/18 7:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.45	1.55								
210	11/12/18 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.45								
210	11/13/18 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.1	1.1	1.1								
210	11/14/18 8:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	1.1	1.1								
166	1/29/18 10:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03	0.96	0.3	13.14	92.5	0.629	1.6	7.25	
166	1/29/18 10:17 AM	B	CHARLES RIVER	LOWER BASIN		0	0.03	0.03	0.87	0.3	13.36	93.8	0.622	3.9	7.15	
166	2/13/18 9:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.69	1.89	0.56	13.83	100.1	1.134		7.26	
166	2/13/18 9:57 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.69	1.94	0.56	13.43	97.3	1.137		6.74	
166	2/27/18 10:19 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.51	6.53	0.46	12.5	102	0.924	2.6	8.07	
166	2/27/18 10:19 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.51	6.38	0.46	12.52	101.9	0.929	7.3	7.87	
166	3/16/18 9:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.04	2.8	0.76	12.94	96.1	1.515	5.7		
166	3/16/18 9:06 AM	B	CHARLES RIVER	LOWER BASIN		0	0.01	0.04	2.83	0.76	12.7	94.4	1.531	8.9		
166	3/26/18 9:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.07	0.08	4.61	0.47	12.52	97.3	0.954	0.5	7.84	
166	4/9/18 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.01								1.4
166	4/10/18 7:30 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.3
166	4/11/18 8:01 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.3
166	4/12/18 9:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.06	0.06	7.4	0.39	11.86	98.9	0.798	2.4	7.57	
166	4/12/18 9:00 AM	B	CHARLES RIVER	LOWER BASIN		0.06	0.06	0.06	7.22	0.39	11.94	99.1	0.797	2.8	7.51	
166	4/23/18 9:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10.62	0.606	11.61	104.5	0.3		7.58	
166	4/23/18 9:18 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	10.41	0.606	11.46	102.7	0.3		7.47	
166	5/8/18 9:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.19	18.05	0.36	8.29	87.8	0.74		7.45	
166	5/8/18 9:01 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.19	17.92	0.36	7.77	82.1	0.741		7.31	
166	5/22/18 9:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.11	20.1	0.38	8.76	96.8	0.782		7.54	
166	5/22/18 9:00 AM	B	CHARLES RIVER	LOWER BASIN		0.03	0.03	0.11	19.49	0.39	7.63	83.3	0.795		7.35	
166	5/23/18 7:18 AM	S	CHARLES RIVER	LOWER BASIN		0.02	0.05	0.05								1
166	5/24/18 7:27 AM	S	CHARLES RIVER	LOWER BASIN		0	0.02	0.05								1.1
166	5/25/18 7:38 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.02								1.3
166	5/29/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN		0	0.06	0.08								1.4
166	5/30/18 7:06 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.06								0.9
166	5/31/18 7:10 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.4
166	6/4/18 9:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.62	0.62	0.63	20.55	0.51	8.22	91.7	1.032		7.22	
166	6/4/18 9:18 AM	B	CHARLES RIVER	LOWER BASIN		0.62	0.62	0.63	20.57	0.51	7.79	86.9	1.038		7.24	
166	6/19/18 8:46 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.14	0.14	22.63	0.63	8.13	94.5	1.254		7.7	
166	6/19/18 8:46 AM	B	CHARLES RIVER	LOWER BASIN		0.01	0.14	0.14	22.52	0.62	7.41	86	1.244		7.52	
166	6/25/18 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0.33	0.59	0.59								1.2
166	6/26/18 7:31 AM	S	CHARLES RIVER	LOWER BASIN		0	0.33	0.59								1.5
166	6/27/18 7:22 AM	S	CHARLES RIVER	LOWER BASIN		0.09	0.09	0.42								0.8
166	6/29/18 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0	1.16	1.25								1.3
166	7/2/18 7:09 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.4
166	7/3/18 7:15 AM	S	CHARLES RIVER	LOWER BASIN		0.01	0.01	0.01								1.3
166	7/5/18 8:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	27.55	0.53	8.92	113.4	1.069		7.93	
166	7/5/18 8:27 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.01	27.36	0.53	8.57	108.5	1.081		7.78	
166	7/16/18 8:37 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.32	25.61	0.74	8.4	103.2	1.475		7.62	
166	7/16/18 8:37 AM	B	CHARLES RIVER	LOWER BASIN		0	0.01	0.32	25.44	0.75	7.35	90.1	1.498		7.58	
166	7/18/18 7:10 AM	S	CHARLES RIVER	LOWER BASIN		0.06	2.74	2.74								1.1
166	7/19/18 7:06 AM	S	CHARLES RIVER	LOWER BASIN		0	0.06	2.74								1.1
166	7/20/18 7:08 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.06								2.6
166	7/21/18 7:04 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.5
166	8/1/18 9:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	26.36	0.69	8.82	109.8	1.38		7.86	
166	8/1/18 9:22 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	26.22	0.7	8.55	106.2	1.405		7.86	
166	8/6/18 7:18 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.64								1.5
166	8/7/18 6:50 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.1
166	8/8/18 7:40 AM	S	CHARLES RIVER	LOWER BASIN		0.98	0.98	0.98								1.5
166	8/20/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.14	24.93	0.52	8.81	106.8	1.048		7.87	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
166	8/20/18 8:30 AM	B	CHARLES RIVER	LOWER BASIN		0	0.01	0.14	24.95	0.52	7.94	96.2	1.045		7.75	
166	8/27/18 7:48 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.4
166	8/28/18 9:50 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.6
166	8/29/18 7:07 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.5
166	8/30/18 7:20 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.2
166	8/31/18 7:09 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.4
166	9/7/18 9:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03	26.26	0.62	9.27	115.2	1.258		7.8	
166	9/7/18 9:03 AM	B	CHARLES RIVER	LOWER BASIN		0	0.03	0.03	26.36	0.6	9.26	115.2	1.211		7.99	
166	9/17/18 8:48 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	22.34	0.54	9.91	114.5	1.096	8.7	8.15	
166	9/17/18 8:48 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	22.23	0.54	10.36	119.3	1.098	9.4	8.36	
166	9/19/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN		0	1.15	1.15								1.2
166	9/20/18 8:21 AM	S	CHARLES RIVER	LOWER BASIN		0	0	1.15								1
166	9/21/18 7:07 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.2
166	10/2/18 8:48 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.29	0.35	0.35								
166	10/9/18 7:51 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.1								0.9
166	10/10/18 7:18 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1
166	10/18/18 9:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.03	13.63	0.33	10.23	98.6	0.673	2.9	7.56	
166	10/18/18 9:22 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.03	13.65	0.33	9.3	89.8	0.675	8.2	7.42	
166	10/26/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.04								0.8
166	10/29/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN		0.52	0.55	1.72								0.9
166	10/30/18 8:30 AM	S	CHARLES RIVER	LOWER BASIN		0	0.52	0.55								0.7
166	10/31/18 8:55 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.52								0.7
166	11/2/18 9:36 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.36	0.37	0.37	9.88	0.27	9.89	87.5	0.56	5.1	7.59	
166	11/2/18 9:36 AM	B	CHARLES RIVER	LOWER BASIN		0.36	0.37	0.37	9.83	0.27	9.94	87.9	0.554	11.7	7.45	
166	11/15/18 10:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.46	0.46	1.56	6.08	0.22	12.17	98.1	0.466	10	7.62	
166	11/15/18 10:43 AM	B	CHARLES RIVER	LOWER BASIN		0.46	0.46	1.56	6.07	0.22	11.46	92.4	0.465	9.9	7.44	
166	11/27/18 9:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.46	1.33	2.11	3.37	0.31			0.645		7.22	
166	11/27/18 9:57 AM	B	CHARLES RIVER	LOWER BASIN		0.46	1.33	2.11	3.36	0.31			0.647		7.19	
166	12/10/18 9:40 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	1.62	0.25			0.528		7.91	
166	12/10/18 9:40 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	1.57	0.25			0.521		7.72	
166	12/26/18 10:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	2.89	0.27	12.55	93.1	0.553		7.69	
166	12/26/18 10:12 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	2.88	0.27	12.52	92.9	0.553		7.51	
011	3/2/18 7:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	2.3	2.3	2.31								
011	3/3/18 7:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	2.3	2.3								
011	3/4/18 6:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	2.3								
011	3/5/18 8:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.05	0.05	0.05	5.43	0.87	11.19	89.1	1.728	5.6	6.64	
011	3/6/18 8:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.05	0.05	5.11	0.94	11.97	94.6	1.851	4.2		
011	3/7/18 8:21 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.55	0.55	0.6	4.67	0.5	11.45	89.2	1.02	4.1		
011	4/4/18 8:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.2	0.67	0.78	8.36	0.67	11.3	96.6	1.34	0	7.39	
011	4/5/18 7:54 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.2	0.67	7.67	0.76	10.92	91.9	1.503	2.1	6.85	
011	4/6/18 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.21	0.21	0.41	7.53	0.74	11.62	97.5	1.478	1.4	7.02	
011	4/9/18 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	6.74	0.62	12.97	106.5	1.238	0.7	7.33	1.4
011	4/9/18 7:30 AM	B	CHARLES RIVER	LOWER BASIN	5	0	0	0.01	6.02	16.19	10.58	94.6	26.71	5.4	7.19	
011	4/10/18 7:37 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	7.04	0.6	11.46	94.9	1.209	0.8	8.45	1.2
011	4/10/18 7:37 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0	6.07	16.38	9.96	89.3	27	0	7.63	
011	4/11/18 7:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	6.92	0.53	12.1	99.8	1.075	3	7.3	1.5
011	4/11/18 7:56 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0	6.13	14.98	10.17	90.5	24.87	7.6	7.36	
011	4/17/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.57	1.61	7.68	0.45	10.69	89.8	0.919	40.9	6.6	
011	4/18/18 7:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.57	7.26	0.37	10.62	88.3	0.752	16	7.18	
011	4/19/18 7:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.23	0.23	0.23	7.99	0.76	10.5	89	1.509		7.24	
011	4/20/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.23	0.23	7.87	0.58	11.25	95	1.159	9.5	6.7	
011	4/21/18 5:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.23								
011	5/23/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.02	0.05	0.05	18.88	0.48	6.63	71.5	0.977	3.9	6.83	1.3
011	5/23/18 7:11 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0.02	0.05	0.05	17.6	6.04	5.23	56.8	10.63	8.4	6.65	
011	5/24/18 7:33 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.02	0.05	19.26	0.45	7.26	78.9	0.906	3.6	8.15	1.2
011	5/24/18 7:33 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0.02	0.05	16.84	10.3	4.85	53.2	17.41	4.9	7.25	
011	5/25/18 7:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	19.1	0.55	7.05	76.4	1.1	3.6	7.07	1.4

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011	5/25/18 7:15 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0.02	17.34	7.57	4.45	48.6	13.09	6.2	6.78	
011	5/29/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	0.08	18.87	0.6	6.72	72.5	1.193	4	7.02	1.2
011	5/29/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0	0.06	0.08	17.54	8.92	4.33	47.7	15.24	15.2	6.71	
011	5/30/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.06	19.52	0.56	6.54	71.5	1.116	6.3	7.33	1.4
011	5/30/18 7:00 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0.06	17.97	6.86	3.97	43.7	11.95	8.7	6.93	
011	5/31/18 7:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	19.75	0.55	6.72	73.8	1.111	4.6	6.91	1.3
011	5/31/18 7:04 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0	0	18.51	4.21	4.44	48.6	7.594	6.2	6.83	
011	6/25/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.33	0.59	0.59	22.48	0.86	7.46	86.6	1.705	4.9	7.33	1.3
011	6/25/18 7:32 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0.33	0.59	0.59	18.21	16.25	5.02	58.6	26.47	5.8	6.88	
011	6/26/18 7:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.33	0.59	22.14	0.8	7.7	88.7	1.592	2.9	7.35	1.6
011	6/26/18 7:24 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0.33	0.59	18.5	14.95	4.81	56.2	24.53	10.6	6.99	
011	6/27/18 7:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.09	0.09	0.42	22.41	0.78	8.13	94.1	1.542	5.9	7.38	1.2
011	6/27/18 7:14 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.09	0.09	0.42	17.51	20.47	6.05	71.5	32.67	5.5	7.07	
011	6/28/18 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.16	1.25	1.25	22.43	0.76	8.57	99.2	1.515		7.12	
011	6/29/18 7:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.16	1.25	22.45	0.81	8.6	99.6	1.603	9.5	7.39	1.4
011	6/29/18 7:18 AM	B	CHARLES RIVER	LOWER BASIN	6.3	0	1.16	1.25	18.64	15.13	4.59	53.8	24.79	5.8	7.09	
011	6/30/18 6:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.16								
011	7/1/18 6:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0								
011	7/2/18 7:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	24.92	0.66	8.27	100.3	1.328	5.7	7.33	1
011	7/2/18 7:06 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0	19.08	17.64	5.46	65.5	28.54	7.7	6.89	
011	7/3/18 7:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.01	25.59	0.57	8.13	99.8	1.143	5.7	7.13	1.5
011	7/3/18 7:10 AM	B	CHARLES RIVER	LOWER BASIN	4.3	0.01	0.01	0.01	22.82	1.83	5.54	65	3.475	6	6.98	
011	7/18/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	2.74	2.74	26.13	0.92	7.26	90.1	1.83	4.2	7.01	1.3
011	7/18/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.2	0.06	2.74	2.74	23.42	10.26	6.34	79	17.41	5.8	6.98	
011	7/19/18 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	2.74	25.59	0.96	7.06	86.8	1.9		7.07	1.4
011	7/19/18 7:01 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.06	2.74	19.27	26.45	6.82	86.5	41.2		7.17	
011	7/20/18 7:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.06	25.35	0.89	7.65	93.6	1.766	4.8	6.83	1.7
011	7/20/18 7:04 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0	0.06	19.45	23.1	5.47	68.2	36.46	5.7	7.02	
011	7/21/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0								1.5
011	7/21/18 7:00 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0								
011	7/22/18 6:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.17	0.17	0.17								
011	8/6/18 7:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.64	27.24	0.81	9.2	116.5	1.621	4.4	7.74	1.3
011	8/6/18 7:11 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0.64	21.77	17.97	6.03	76.2	29.05	15.2	7.18	
011	8/7/18 6:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	28.13	0.74	9.82	126.3	1.481	3.8	7.7	1.2
011	8/7/18 6:43 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	21.74	16.97	3.03	38	27.57	6.4	7.11	
011	8/8/18 7:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.98	0.98	0.98	28.39	0.74	8.98	116	1.49	3.9	8.15	1.4
011	8/8/18 7:34 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0.98	0.98	0.98	22.13	15.56	1.46	18.3	25.48	4.2	7.22	
011	8/9/18 7:50 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	1.04	1.04								
011	8/27/18 7:42 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	24.44	0.57	10	120.2	1.159	4.8	7.53	1.2
011	8/27/18 7:42 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0	0	0	22.74	12.88	4.98	62.2	21.44	7	7	
011	8/28/18 10:06 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	25.42	0.53	9.92	121.3	1.066	4	8.02	1.7
011	8/28/18 10:06 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0	0	22.06	18.15	4.34	55.3	29.32	9.6	7.25	
011	8/29/18 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	25.97	0.52	10.13	125.1	1.053	3.5	7.46	1.2
011	8/29/18 6:58 AM	B	CHARLES RIVER	LOWER BASIN	4.9	0	0	0	23.04	13.31	5.24	66	22.1	10.8	6.97	
011	8/30/18 7:16 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	26.81	0.46	9.24	115.9	0.945	5	7.87	1.3
011	8/30/18 7:16 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0	22.35	20.01	4.36	56.3	32.05	6	7.3	
011	8/31/18 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	25.75	0.6	7.96	97.9	1.215	3.8	7.15	1.6
011	8/31/18 7:01 AM	B	CHARLES RIVER	LOWER BASIN	4.6	0	0	0	24.41	8.67	5.15	64.7	14.91	6.9	6.87	
011	9/18/18 7:02 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.15	1.15	1.15	22.68	0.62	7.63	88.8	1.248		6.81	
011	9/19/18 8:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.15	1.15	22.27	0.63	8.46	97.6	1.26	7.3	6.99	1.1
011	9/19/18 8:26 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	1.15	1.15	20.92	14.75	3.63	44.3	24.24	13.9	6.6	
011	9/20/18 8:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	1.15	21.41	0.73	7.37	83.7	1.456	6.2	6.67	1.1
011	9/20/18 8:23 AM	B	CHARLES RIVER	LOWER BASIN	4.4	0	0	1.15	21.62	2.47	5.1	58.8	4.618	8	6.54	
011	9/21/18 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	20.91	0.67	7.3	82	1.344	5.9	6.56	1.3
011	9/21/18 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0	0	0	20.64	14.9	2.21	26.8	24.47	13.2	6.33	
011	9/22/18 5:42 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.03								
011	9/23/18 6:46 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.03	0.03								

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011	10/9/18 7:47 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.1	16.86	0.34	8.17	84.5	0.699	4.3	7.17	0.9
011	10/9/18 7:47 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0	0.1	16.94	1.95	7.84	82	3.679	4.8	6.6	
011	10/10/18 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	17.43	0.48	8.71	91.2	0.961	4.4	6.61	1.1
011	10/10/18 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	0	0	17.32	4.98	7.59	81.5	8.878	4.9	6.23	
011	10/11/18 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.6	0.6	0.6	18.26	0.59	8.34	88.9	1.18	5.8	7.1	
011	10/12/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.09	0.69	0.69	18.03	0.84	8.39	89.1	1.661	8.7	7.19	
011	10/13/18 6:43 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.13	0.22	0.82								
011	10/14/18 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.13	0.22								
011	10/15/18 7:32 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.2	15.76	0.41	8.37	84.6	0.827	2.4	7.07	
011	10/16/18 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.1	0.1	14.97	0.46	8.3	82.5	0.921	5.4	6.99	
011	10/26/18 8:33 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	9.73	0.52	10.64	94	1.044	4.6	6.75	1
011	10/26/18 8:33 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0.04	11.21	5.5	9.1	85.8	9.74	10.1	6.36	
011	10/27/18 6:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.17	1.17	1.17								
011	10/28/18 6:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	1.2	1.2								
011	10/29/18 8:25 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.52	0.55	1.72	9.3	0.56	10.01	87.5	1.131	4.9	7.34	0.8
011	10/29/18 8:25 AM	B	CHARLES RIVER	LOWER BASIN	5	0.52	0.55	1.72	9.33	0.8	9.85	86.3	1.576	7.8	7.25	
011	10/30/18 8:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.52	0.55	9.23	0.6	10.16	88.7	1.19	5.6	6.73	0.9
011	10/30/18 8:34 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0	0.52	0.55	9.29	1.5	9.89	86.9	2.872	6.7	6.54	
011	10/31/18 8:50 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.52	9	0.52	10.36	89.9	1.048	7.9	7.47	0.9
011	10/31/18 8:50 AM	B	CHARLES RIVER	LOWER BASIN	3.4	0	0	0.52								
011	11/10/18 6:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.45	1.55	1.55								
011	11/11/18 6:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.45	1.55								
011	11/12/18 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.45								
011	11/13/18 8:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.1	1.1	1.1								
011	11/14/18 8:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	1.1	1.1								
174	4/24/18 10:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	4/25/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72								
174	4/26/18 9:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93								
174	4/27/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47								
174	4/28/18 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
174	4/29/18 7:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
174	4/30/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25								
174	5/3/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09								
174	5/4/18 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09								
174	5/16/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1								
174	5/17/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	17.63	0.61	7.02	73.8	1.221	7.28		
174	5/18/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	5/19/18 7:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
174	5/20/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
174	5/21/18 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28								
174	6/5/18 8:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96								
174	6/6/18 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96								
174	6/7/18 8:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34								
174	6/8/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	6/9/18 8:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	6/10/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	7/6/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
174	7/7/18 7:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
174	7/8/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
174	7/9/18 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	7/10/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	7/11/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19								
174	7/17/18 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69								
174	7/27/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74								
174	7/28/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								
174	7/29/18 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	7/30/18 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
174	7/31/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	8/13/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06								
174	8/14/18 9:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68								
174	8/15/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
174	8/16/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01								
174	8/17/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
174	8/18/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
174	8/19/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
174	9/10/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76								
174	9/11/18 9:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29								
174	9/12/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55								
174	9/13/18 10:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23								
174	9/14/18 10:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7								
174	9/26/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52								
174	9/27/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57								
174	9/28/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68								
174	9/29/18 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
174	9/30/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
174	10/22/18 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03								
174	10/23/18 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44								
174	10/24/18 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45								
174	11/4/18 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
174	11/5/18 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75								
174	11/6/18 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14								
174	11/7/18 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
174	11/8/18 11:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
074	4/24/18 10:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	14.23	0.73	11.77	115.3	1.447		7.88	
074	4/25/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	13.09	0.73	10.69	102.1	1.449	7.9	7.22	
074	4/26/18 9:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	12.74	0.51	9.39	88.9	1.02		7.23	
074	4/27/18 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	13.46	0.58	9.94	95.7	1.164	11.5	7.11	
074	4/28/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
074	4/29/18 7:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
074	4/30/18 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	11.88	0.64	11.12	103.3	1.265		7.57	
074	5/3/18 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	18.07	0.63	11.33	120.3	1.266		7.65	
074	5/4/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	18.54	0.69	8.87	95.1	1.371	13.5	7.45	
074	5/16/18 9:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	18.44	0.53	6.31	67.4	1.066		7.16	
074	5/17/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	17.63	0.61	7.02	73.8	1.221		7.28	
074	5/18/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	17.13	0.64	7.13	74.2	1.268		7.26	
074	5/19/18 7:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
074	5/20/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
074	5/21/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	18.47	0.63	8.86	94.8	1.251		7.37	
074	6/5/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	17.06	0.62	6.7	69.7	1.232		7.26	
074	6/6/18 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	16.08	0.55	6.03	61.4	1.105		7.29	
074	6/7/18 8:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	18.69	0.66	7.56	81.3	1.313		7.46	
074	6/8/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	18.78	0.6	6.06	65.3	1.193		7.33	
074	6/9/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
074	6/10/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
074	7/6/18 8:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
074	7/7/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
074	7/8/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
074	7/9/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.42	0.56	3.68	41.8	1.135		7.39	
074	7/10/18 8:49 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	22.67	0.58	4.55	52.9	1.163		7.52	
074	7/11/18 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	23.39	0.57	2.97	34.9	1.149		7.35	
074	7/17/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	24.5	0.59	4.29	51.5	1.188		7.4	
074	7/27/18 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	24.4	0.44	4.03	48.3	0.9		7.32	
074	7/28/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								
074	7/29/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
074	7/30/18 8:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	22.9	0.5	0.81	9.5	1.016		7.17	
074	7/31/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	22.77	0.55	5.49	63.9	1.107		7.5	
074	8/13/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	22.16	0.45	4.64	53.3	0.909		7.27	
074	8/14/18 9:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	22.88	0.46	6.11	71.3	0.927		7.39	
074	8/15/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
074	8/16/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	24.3	0.5	6.68	80	1.013		7.52	
074	8/17/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	22.84	0.52	4.52	52.7	1.047		7.33	
074	8/18/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
074	8/19/18 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
074	9/10/18 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	16.42	0.59	9.15	93.8	1.173		7.73	
074	9/11/18 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	19.47	0.39	6.07	66.2	0.787	10.8	7.17	
074	9/12/18 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	19.98	0.56	5.41	59.6	1.132		7.36	
074	9/13/18 10:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	20.01	0.4	7.86	86.6	0.821	8.1	7.4	
074	9/14/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	20.42	0.57	8.53	94.9	1.15	6.4	7.58	
074	9/26/18 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	19.2	0.32	6.41	69.5	0.651		7.34	
074	9/27/18 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	19.97	0.38	6.4	70.5	0.783	20	7.21	
074	9/28/18 10:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	17.53	0.49	8.91	93.5	0.988		7.62	
074	9/29/18 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
074	9/30/18 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
074	10/22/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	9.28	0.58	7.75	67.7	1.16		7.4	
074	10/23/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	9.3	0.65	7.86	68.8	1.289		7.55	
074	10/24/18 9:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	10.49	0.55	7.94	71.4	1.107		7.44	
074	11/4/18 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
074	11/5/18 10:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	9.96	0.46	9.48	84.1	0.928	9.3	7.46	
074	11/6/18 10:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	11.05	0.41	7.63	69.4	0.839	16.5	7.17	
074	11/7/18 10:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
074	11/8/18 11:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
277	4/24/18 10:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	12.28	0.75	11.68	109.6	1.477		7.57	
277	4/25/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	12.6	0.74	9.8	92.6	1.466	7.6	7	
277	4/26/18 8:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	12.66	0.51	9.53	90	1.023		7.28	
277	4/27/18 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	13.12	0.58	9.31	88.9	1.163	17	6.93	
277	4/28/18 7:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
277	4/29/18 6:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
277	4/30/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	11.7	0.66	10.37	96	1.306		7.45	
277	5/3/18 8:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	16.56	0.68	8.57	88.2	1.358		7.38	
277	5/4/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	17.76	0.7	6.99	73.8	1.381		7.22	
277	5/16/18 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	18.11	0.54	5.45	57.9	1.076		7.08	
277	5/17/18 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	16.93	0.61	5.07	52.6	1.222		7.12	
277	5/18/18 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.58	0.63	5.12	52.8	1.262		7.11	
277	5/19/18 6:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
277	5/20/18 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
277	5/21/18 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	16.38	0.63	5.18	53.1	1.251		7.15	
277	6/5/18 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	15.26	0.62	5.2	52	1.236		7.11	
277	6/6/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	16.1	0.58	5.01	51.1	1.168		7.26	
277	6/7/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	16.69	0.66	5.36	55.4	1.305		7.24	
277	6/8/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.62	0.65			1.292		7.41	
277	6/9/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
277	6/10/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
277	7/6/18 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
277	7/7/18 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
277	7/8/18 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
277	7/9/18 7:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.42	0.58	4.46	49.7	1.172		7.33	
277	7/10/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.35	0.63	3.58	40.6	1.27		7.37	
277	7/11/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	22.16	0.62	1.83	21.1	1.253		7.28	
277	7/17/18 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	22.6	0.62	2.95	34.2	1.249		7.35	
277	7/27/18 8:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	23.32	0.39	2.55	30	0.79		7.26	
277	7/28/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
277	7/29/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
277	7/30/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.98	0.57	2.93	33	1.152		7.29	
277	7/31/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.88	0.59	3.24	36.3	1.189		7.36	
277	8/13/18 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	22.08	0.4	4.38	50.3	0.815		7.28	
277	8/14/18 9:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	22.05	0.4	5.96	68.4	0.816		7.41	
277	8/15/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
277	8/16/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	23.39	0.51	5.03	59.3	1.029		7.25	
277	8/17/18 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	22.12	0.52	3.16	36.4	1.055		7.23	
277	8/18/18 8:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
277	8/19/18 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
277	9/10/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	15.54	0.63	5.91	59.5	1.254		7.58	
277	9/11/18 9:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	19.12	0.35	7.28	78.9	0.709	9	7.1	
277	9/12/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	19.87	0.53	4.62	50.9	1.071		7.26	
277	9/13/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	19.47	0.36	4.74	51.7	0.741	10.1	7.09	
277	9/14/18 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	19.28	0.54	5.36	58.3	1.095	13.2	7.34	
277	9/26/18 10:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	18.92	0.3	5.97	64.4	0.619		7.34	
277	9/27/18 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	19.41	0.36	6.53	71.2	0.733	16.7	7.18	
277	9/28/18 9:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	17.83	0.5	7.8	82.3	1.005		7.42	
277	9/29/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
277	9/30/18 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
277	10/22/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	7.05	0.33	6.27	51.8	0.669	14.7	7.16	
277	10/23/18 9:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	8.76	0.65	2.86	24.7	1.303		7.46	
277	10/24/18 9:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	10.45	0.52	4.49	40.3	1.051		7.34	
277	11/4/18 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
277	11/5/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	10.24	0.46	6.85	61.2	0.932	12.9	7.25	
277	11/6/18 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	11.06	0.39	8.92	81.2	0.792	10.8	7.15	
277	11/7/18 10:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
277	11/8/18 10:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
172	4/24/18 10:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.86	0.75	11.41	106	1.474		7.62	
172	4/25/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	12.56	0.74	9.24	87.2	1.472	5.7	7.03	
172	4/25/18 9:40 AM	B	MYSTIC/ALEWIFE	ALEWIFE BROOK		0.72	0.72	0.72	12.56	0.75	8.75	82.6	1.473	5.7	7.03	
172	4/26/18 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	12.66	0.51	9.15	86.5	1.024		7.22	
172	4/27/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	13.06	0.59	9.29	88.6	1.17	18.6	6.94	
172	4/28/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
172	4/29/18 6:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
172	4/30/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	11.76	0.66	10.1	93.6	1.318		7.41	
172	5/3/18 8:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	16.29	0.69	7.82	80.1	1.364		7.37	
172	5/4/18 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	17.66	0.69	6.51	68.6	1.379	8	7.23	
172	5/16/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	18.13	0.54	5.54	58.8	1.077		7.1	
172	5/17/18 9:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	16.97	0.61	5.38	55.8	1.225		7.16	
172	5/18/18 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.67	0.64	5.26	54.2	1.272		7.17	
172	5/19/18 6:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
172	5/20/18 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
172	5/21/18 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	16.35	0.63	5.3	54.3	1.251		7.2	
172	6/5/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	15.28	0.62	6.62	66.3	1.239		7.22	
172	6/6/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	16.15	0.59	5.17	52.7	1.177		7.23	
172	6/7/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	16.65	0.66	8.04	82.9	1.305		7.4	
172	6/8/18 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.36	0.66	4.7	48.2	1.306		7.28	
172	6/9/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	6/10/18 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	7/6/18 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
172	7/7/18 7:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
172	7/8/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
172	7/9/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.18	0.59	2.79	30.9	1.177		7.32	
172	7/10/18 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.17	0.64	4.7	53.1	1.272		7.38	
172	7/11/18 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	22.04	0.63	1.6	18.3	1.253		7.28	
172	7/17/18 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	22.42	0.62	3.14	36.4	1.248		7.37	

2017 MWRA Central Lab Field Results

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172	7/27/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	23.26	0.39	2.21	25.9	0.79		7.21	
172	7/28/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								
172	7/29/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	7/30/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.84	0.57	2.42	27.2	1.154		7.3	
172	7/31/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.67	0.59	3.11	34.8	1.191		7.34	
172	8/13/18 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	22.09	0.4	4.46	51.2	0.814		7.24	
172	8/14/18 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	22.18	0.41	6.61	76.1	0.837		7.34	
172	8/15/18 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
172	8/16/18 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	23.35	0.51	4.99	58.8	1.03		7.27	
172	8/17/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	22.07	0.53	3.03	34.7	1.064		7.24	
172	8/18/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
172	8/19/18 7:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
172	9/10/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	15.31	0.63	7.23	72.4	1.26		7.54	
172	9/11/18 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	19.13	0.35	6.62	71.7	0.708	10.8	7.08	
172	9/12/18 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	19.85	0.53	4.62	50.8	1.075		7.27	
172	9/13/18 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	19.43	0.36	6.31	68.8	0.743	6.4	7.18	
172	9/14/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	19.17	0.55	6.23	67.7	1.1	7.1	7.37	
172	9/26/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	18.92	0.3	5.83	62.8	0.619		7.27	
172	9/27/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	19.39	0.36	6.67	72.6	0.732	22.1	7.17	
172	9/28/18 9:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	17.9	0.5	8.06	85.2	1.005		7.41	
172	9/29/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
172	9/30/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
172	10/22/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	6.94	0.63	10.63	87.8	1.258	12.6	7.26	
172	10/23/18 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	8.56	0.66	3.31	28.4	1.306		7.32	
172	10/24/18 9:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	10.58	0.51	6.39	57.6	1.025		7.4	
172	11/4/18 8:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
172	11/5/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	10.14	0.46	10.33	92.1	0.937	11	7.32	
172	11/6/18 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	11.03	0.39	6.7	61	0.788	14.3	7.13	
172	11/7/18 10:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
172	11/8/18 11:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
276	4/24/18 9:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.44	0.74	11.43	105.2	1.472		7.59	
276	4/25/18 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	12.43	0.72	8.56	80.5	1.428	7.6	6.87	
276	4/26/18 8:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	12.62	0.5	9.22	87	0.996		7.24	
276	4/27/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	12.88	0.58	8.82	83.8	1.167	13.5	6.83	
276	4/28/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
276	4/29/18 6:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
276	4/30/18 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	11.68	0.66	9.01	83.3	1.316		7.35	
276	5/3/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	16.1	0.69	7.66	78.1	1.363		7.35	
276	5/4/18 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	17.56	0.7	6.71	70.5	1.383	8.4	7.25	
276	5/16/18 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	18.06	0.53	5.41	57.4	1.067		7.09	
276	5/17/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	16.91	0.61	4.75	49.2	1.226		7.16	
276	5/18/18 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.79	0.64	5.26	54.3	1.269		7.18	
276	5/19/18 6:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
276	5/20/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
276	5/21/18 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	16.37	0.63	4.95	50.7	1.251		7.15	
276	6/5/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	15.18	0.61	5.65	56.5	1.21		7.14	
276	6/6/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	16.07	0.58	6.95	70.8	1.155		7.27	
276	6/7/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	16.56	0.66	6.06	62.4	1.308		7.3	
276	6/8/18 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	16.31	0.66			1.304		7.26	
276	6/9/18 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
276	6/10/18 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
276	7/6/18 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
276	7/7/18 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
276	7/8/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
276	7/9/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.31	0.59	2.29	25.5	1.178		7.27	
276	7/10/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.43	0.62	4.23	48.1	1.234		7.38	
276	7/11/18 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	22.34	0.63	1.6	18.5	1.262		7.25	

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276	7/17/18 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	22.73	0.63	3.91	45.5	1.258		7.33	
276	7/27/18 8:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	23.17	0.37	2.04	23.9	0.767		7.25	
276	7/28/18 7:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								
276	7/29/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
276	7/30/18 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.99	0.57	2	22.5	1.154		7.19	
276	7/31/18 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20.89	0.59	3.6	40.5	1.177		7.31	
276	8/13/18 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	22.04	0.39	3.71	42.5	0.804		7.3	
276	8/14/18 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	22.2	0.41	5.3	61	0.837		7.34	
276	8/15/18 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
276	8/16/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	23.36	0.51	4.2	49.5	1.024		7.04	
276	8/17/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	22.19	0.53	3.22	37	1.069		7.27	
276	8/18/18 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
276	8/19/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
276	9/10/18 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	15.35	0.63	7.88	79.1	1.263		7.63	
276	9/11/18 9:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	18.95	0.33	4.73	51.1	0.683	10.5	7.15	
276	9/12/18 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	19.9	0.53	4.57	50.3	1.068		7.19	
276	9/13/18 10:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	19.27	0.38	6.15	66.8	0.782	7.6	7.31	
276	9/14/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	19.01	0.54	5.94	64.2	1.093	7.5	7.38	
276	9/26/18 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	18.82	0.3	6.67	71.8	0.611		7.43	
276	9/27/18 9:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	19.04	0.35	6.12	66.2	0.709	9.7	7.15	
276	9/28/18 9:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	17.91	0.49	8.09	85.6	0.995		7.36	
276	9/29/18 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
276	9/30/18 7:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
276	10/22/18 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	7.17	0.63	10.6	88	1.251	6.6	7.38	
276	10/23/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	8.5	0.66	9.58	82.2	1.312		7.61	
276	10/24/18 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	10.56	0.5	7.3	65.8	1.008		7.53	
276	11/4/18 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
276	11/5/18 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	10.19	0.46	8.8	78.5	0.937	9.5	7.33	
276	11/6/18 10:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	11.12	0.39	7.76	70.7	0.781	13.6	7.23	
276	11/7/18 10:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
276	11/8/18 10:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
070	4/24/18 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.13	0.74	10.13	92.6	1.455		7.53	
070	4/25/18 9:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.72	0.72	0.72	12.64	0.74	8.52	80.6	1.472	10.1	6.67	
070	4/26/18 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.21	0.93	0.93	12.6	0.45	9.08	85.7	0.91		7.23	
070	4/27/18 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.54	0.75	1.47	12.8	0.58	8.37	79.4	1.151	17.8	6.71	
070	4/28/18 7:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.54	0.75								
070	4/29/18 6:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.59								
070	4/30/18 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.25	0.25	11.49	0.66	8.74	80.5	1.316		7.3	
070	5/3/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.09	0.09	0.09	16.5	0.69	6.92	71.2	1.368		7.22	
070	5/4/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.09	0.09	18.12	0.7	5.76	61.2	1.394	10.7	7.16	
070	5/16/18 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1	1	17.87	0.49	4.52	47.8	0.995		7.01	
070	5/17/18 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1	16.85	0.62	4.87	50.4	1.236		7.11	
070	5/18/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	17.15	0.64	5.48	57.1	1.268		7.22	
070	5/19/18 6:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2								
070	5/20/18 7:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.28	0.28								
070	5/21/18 7:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.28	16.65	0.62	4.27	44	1.243		7.03	
070	6/5/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.34	0.96	0.96	15.15	0.57	6.39	63.8	1.138		7.11	
070	6/6/18 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.34	0.96	16.06	0.54	5.07	51.6	1.081		7.22	
070	6/7/18 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.34	16.83	0.66	7.71	79.8	1.32		7.22	
070	6/8/18 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	17.12	0.66	4.18	43.5	1.307		7.17	
070	6/9/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	6/10/18 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	7/6/18 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.35	0.35								
070	7/7/18 7:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.35								
070	7/8/18 7:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
070	7/9/18 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	23.07	0.59	2.78	32.6	1.19		7.06	
070	7/10/18 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	23.42	0.6	2.99	35.2	1.21		7.16	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
070	7/11/18 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.19	0.19	0.19	24.33	0.62	1.77	21.2	1.246		7.08	
070	7/17/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	2.68	2.68	2.69	23.71	0.62	1.39	16.4	1.244		7.01	
070	7/27/18 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.74	23.54	0.36	2.54	30	0.74		7.39	
070	7/28/18 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.6								
070	7/29/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	7/30/18 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	23.4	0.58	1.68	19.8	1.167		6.73	
070	7/31/18 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	22.96	0.59	1.95	22.8	1.185		7.03	
070	8/13/18 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.29	1.67	2.06	22.13	0.44	3.88	44.6	0.9		7.44	
070	8/14/18 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.3	1.68	21.87	0.42	5.3	60.6	0.845		7.42	
070	8/15/18 7:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.3								
070	8/16/18 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	23.76	0.49	3.52	41.7	0.992		6.49	
070	8/17/18 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.2	0.2	0.2	24.4	0.53	2.64	31.7	1.082		6.94	
070	8/18/18 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.33	0.33								
070	8/19/18 7:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.14	0.34								
070	9/10/18 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.76	0.76	0.76	15.99	0.63	7.86	79.9	1.263		7.6	
070	9/11/18 9:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.53	1.29	1.29	18.51	0.29	6.16	65.9	0.594	4.6	7.18	
070	9/12/18 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.26	0.79	1.55	20.25	0.5	3.24	35.9	1.018		7	
070	9/13/18 9:49 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.44	0.7	1.23	19.64	0.38	6.36	69.5	0.781	3.7	7.42	
070	9/14/18 9:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.44	0.7	19.27	0.52	5.76	62.7	1.049	3.4	7.44	
070	9/26/18 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.28	1.52	1.52	18.81	0.3	6.47	69.6	0.608		7.47	
070	9/27/18 9:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.33	1.57	19.37	0.34	4.79	52.1	0.689	12	7.21	
070	9/28/18 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.35	0.4	0.68	17.9	0.47	7.93	83.8	0.939		7.41	
070	9/29/18 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.35	0.4								
070	9/30/18 6:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.35								
070	10/22/18 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.03	7.95	0.63	8.6	72.8	1.266	8.4	7.18	
070	10/23/18 8:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.41	0.41	0.44	9.12	0.65	8.99	78.3	1.296		7.61	
070	10/24/18 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.45	0.45	10.59	0.62	8.34	75.2	1.237		7.49	
070	11/4/18 8:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.39	1.75								
070	11/5/18 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.36	0.36	1.75	10.13	0.46	8.56	76.2	0.926	8	7.27	
070	11/6/18 9:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.78	1.14	1.14	11.17	0.38	9.26	84.5	0.772	11.5	7.33	
070	11/7/18 9:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.78	1.14								
070	11/8/18 10:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.78								
083	1/18/18 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.21	0.21	1.83	0.54	12.3	88.8	1.095	4.6	6.99	
083	1/29/18 9:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	2.73	0.56	12.39	91.8	1.143	2.2	7.14	
083	2/13/18 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.69	2.1	0.62	12.92	94.1	1.266		6.8	
083	2/27/18 9:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.51	4.78	0.65	12.16	95.1	1.296	2.3	7.54	
083	3/16/18 8:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.04	3.65	0.68	12.13	92.1	1.372	3.3		
083	3/26/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	0.08	3.63	0.7	12.54	95.2	1.396	5.6	7.62	
083	4/12/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.06	0.06	6.44	0.63	11.63	94.8	1.262	4.7	7.42	
083	4/23/18 8:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	9.21	1.198	11.77	102.8	0.6		7.55	
083	4/24/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10.39	0.57	11.43	102.6	1.148		7.89	
083	4/25/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	10.44	0.53	10.69	96	1.06	4.7	6.63	
083	4/26/18 8:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	11.03	0.51	11.56	105.2	1.031		7.51	
083	4/27/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	11.61	0.53	11.17	103.1	1.06	7.2	6.56	
083	4/28/18 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75								
083	4/29/18 6:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59								
083	4/30/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	12.63	0.53	11.13	105.1	1.063		7.4	
083	5/3/18 9:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	15.82	0.51	12.21	123.6	1.031	5	8.27	
083	5/4/18 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	16.88	0.51	10.3	106.6	1.024	2.9	7.33	
083	5/8/18 8:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.19	16.29	0.51	10.19	104.1	1.018		7.73	
083	5/16/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	17.48	0.5	8.07	84.6	1.006		7.04	
083	5/17/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	17.64	0.51	8.09	85	1.024		7.24	
083	5/18/18 7:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	16.95	0.51	7.71	80	1.028		7.11	
083	5/19/18 6:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2								
083	5/20/18 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28								
083	5/21/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	18.28	0.51	9.2	98	1.034	3.6	7.84	
083	5/22/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.11	19	0.44	9.01	97.4	0.895		7.51	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
083	6/4/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.62	0.62	0.63	14.84	0.12	9.95	98.4	0.258		7.28	
083	6/5/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	18.51	0.53	7.37	78.9	1.071		6.83	
083	6/6/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	18.41	0.52	7.54	80.6	1.055		7.3	
083	6/7/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	18.77	0.53	7.73	83.2	1.06		6.9	
083	6/8/18 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	19.26	0.53	7.73	84	1.06	6	7.69	
083	6/8/18 9:19 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	18.99	0.53	7.16	77.4	1.059	7.6	7.56	
083	6/9/18 7:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
083	6/10/18 7:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
083	6/19/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.14	23.49	0.53	7.16	84.5	1.073		7.53	
083	7/5/18 7:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	28.65	0.52	6.68	86.5	1.05		7.75	
083	7/6/18 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35								
083	7/7/18 6:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35								
083	7/8/18 7:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
083	7/9/18 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.53	0.52	7.53	92.2	1.05	5.7	8.68	
083	7/9/18 9:18 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	24.8	0.52	4.53	54.7	1.05	5.6	8.31	
083	7/10/18 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.9	0.52	6.04	74.5	1.047	3.9	8.5	
083	7/10/18 9:12 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	25.43	0.52	4.07	49.8	1.045	6.4	8.19	
083	7/11/18 9:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	26.89	0.52	7.12	89.4	1.054	7.6	8.51	
083	7/11/18 9:17 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	26.47	0.52	5.48	68.3	1.053	6.6	8.33	
083	7/16/18 8:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.32	25.22	0.52	5.06	61.7	1.055		7.5	
083	7/17/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	26.53	0.53	6.46	80.7	1.075		8.44	
083	7/17/18 8:58 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	2.68	2.68	2.69	26.07	0.53	3.96	49.1	1.07		8.04	
083	7/27/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	25.35	0.48	6.44	78.7	0.982		7.59	
083	7/28/18 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6								
083	7/29/18 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
083	7/30/18 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.98	0.48	8.56	105.7	0.98	3.1	8.34	
083	7/30/18 9:12 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	25.84	0.48	6.24	76.9	0.98	10.1	7.97	
083	7/31/18 9:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	26.03	0.48	7.07	87.4	0.984	4.8	8.32	
083	7/31/18 9:07 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	25.74	0.48	5.88	72.3	0.983	6	8.05	
083	8/1/18 8:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.98	0.48	6.25	77.3	0.982		7.52	
083	8/13/18 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	25.2	0.45	8.26	100.6	0.912		7.64	
083	8/14/18 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	24.83	0.46	8.16	98.7	0.933		7.41	
083	8/15/18 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	25.32	0.46	7.03	85.8	0.933	3.7	7.48	
083	8/16/18 8:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	25.94	0.46	6.93	85.5	0.929	3.6	6.92	
083	8/17/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	26.07	0.45	9.5	117.5	0.926	2.6	8.56	
083	8/17/18 8:53 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	26	0.45	7.97	98.5	0.926	4.2	8.31	
083	8/18/18 7:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33								
083	8/19/18 6:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34								
083	8/20/18 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.14	24.38	0.45	7.59	91	0.918		7.66	
083	9/7/18 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	25.7	0.45	7.01	86.2	0.914		7.5	
083	9/10/18 9:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	20.01	0.3	9.46	104.2	0.623		7.92	
083	9/11/18 8:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	21.14	0.43	6.96	78.5	0.866	1.7	7.59	
083	9/12/18 7:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	21.88	0.46	7.64	87.4	0.93		6.96	
083	9/13/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	21.59	0.43	8.46	96.2	0.879	0.4	7.68	
083	9/14/18 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	21.59	0.44	8.61	97.9	0.888	2.2	7.77	
083	9/17/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	22.6	0.43	8.21	95.3	0.877	6.6	7.59	
083	9/26/18 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	19.46	0.41	8.24	89.8	0.83		7.52	
083	9/27/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	19.5	0.4	9.52	103.9	0.807	5.4	7.49	
083	9/28/18 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	19.2	0.4	9.69	105.1	0.817		7.47	
083	9/29/18 7:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4								
083	9/30/18 6:46 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
083	10/2/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	0.35	0.35								
083	10/18/18 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.03	12.41	0.27	9.97	93.5	0.56	2.3	7.72	
083	10/22/18 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	10.95	0.44	8.36	76	0.884	5.3	7.26	
083	10/23/18 8:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	11.84	0.44	9.87	91.5	0.894		7.85	
083	10/24/18 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	11.71	0.44	8.93	82.5	0.891		7.75	
083	11/2/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.37	0.37	12.06	0.45	8.19	76.3	0.916	4.8	7.54	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
083	11/4/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75								
083	11/5/18 9:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	10.56	0.43	9.42	84.8	0.863	10.3	7.4	
083	11/6/18 9:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	10.69	0.41	9.11	82.2	0.833	10.3	7.38	
083	11/7/18 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14								
083	11/8/18 10:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78								
083	11/15/18 10:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	0.46	1.56	7.62	0.39	8.14	68.3	0.794	50.5	7.3	
083	11/27/18 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	1.33	2.11	5.42	0.38			0.78		7.16	
083	12/10/18 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	2.75	0.42			0.852		7.56	
057	4/24/18 9:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10.37	0.58	11.42	102.4	1.157		7.75	
057	4/25/18 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	10.24	0.56	11.45	102.4	1.128	6.4	6.58	
057	4/26/18 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	11.11	0.53	10.88	99.3	1.07		7.47	
057	4/27/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	11.61	0.54	11.32	104.4	1.078	5.9	6.59	
057	4/28/18 7:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75								
057	4/29/18 6:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59								
057	4/30/18 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	12.2	0.53	11	102.9	1.058		7.53	
057	5/3/18 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	15.82	0.52	11.95	121	1.042	4.9	8.1	
057	5/4/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	16.98	0.51	9.98	103.6	1.028	6.1	7.39	
057	5/16/18 8:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	17.38	0.5	8.41	88	1.012		7.23	
057	5/17/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	17.38	0.51	7.84	82	1.023		7.27	
057	5/18/18 7:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	17.25	0.49	7.08	73.8	0.98		7.17	
057	5/19/18 6:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2								
057	5/20/18 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28								
057	5/21/18 9:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	18.55	0.52	8.08	86.6	1.038	8.5	7.64	
057	6/5/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	18.01	0.53	8.24	87.3	1.064		7.14	
057	6/6/18 8:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	18.41	0.49	7.68	82	0.985		7.38	
057	6/7/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	18.53	0.53	8.63	92.4	1.061		7.2	
057	6/8/18 9:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	19.26	0.55	8.38	91.1	1.096	5.9	7.94	
057	6/9/18 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
057	6/10/18 7:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
057	7/6/18 7:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35								
057	7/7/18 6:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35								
057	7/8/18 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
057	7/9/18 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	24.79	0.54	7.43	89.8	1.095	7.3	8.59	
057	7/10/18 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.61	0.51	5.62	69	1.043	5.6	8.42	
057	7/10/18 9:05 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	23.66	0.58	2.76	32.7	1.169	19	7.85	
057	7/11/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	26.37	0.52	7.31	91	1.053	6.1	8.62	
057	7/17/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	26.34	0.53	4.84	60.2	1.07		8.32	0.7
057	7/27/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	25.29	0.48	4.36	53.2	0.974		7.4	
057	7/28/18 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6								
057	7/29/18 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
057	7/30/18 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.58	0.5	5.85	71.7	1.01	5.8	8.07	
057	7/31/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.73	0.49	5.9	72.6	0.99	4.9	8.15	
057	8/13/18 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	24.91	0.45	7.41	89.7	0.914		7.6	
057	8/14/18 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	24.65	0.47	7.04	84.9	0.949		7.44	
057	8/15/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	25.31	0.46	6.74	82.2	0.933	4	7.46	
057	8/16/18 8:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	25.74	0.46	5.81	71.5	0.937	7.8	7.21	
057	8/17/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	26.01	0.45	9.48	117.2	0.926	2.7	8.58	
057	8/17/18 8:49 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	26.02	0.45	7.99	98.7	0.925	4.6	8.37	
057	8/18/18 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33								
057	8/19/18 7:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34								
057	9/10/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	20.2	0.46	8.91	98.7	0.931		7.72	
057	9/11/18 8:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	20.71	0.42	6.57	73.5	0.844	1.7	7.46	
057	9/12/18 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	21.78	0.46	6.9	78.7	0.933		7.12	
057	9/13/18 9:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	21.46	0.4	7.95	90.2	0.812	0.5	7.62	
057	9/14/18 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	21.45	0.44	8.09	91.8	0.887	1.7	7.7	
057	9/26/18 9:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	19.54	0.35	7.39	80.7	0.719		7.46	
057	9/27/18 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	19.37	0.38	8.82	96	0.776	8.8	7.52	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
057	9/28/18 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	18.99	0.4	9.41	101.7	0.817		7.49	
057	9/29/18 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4								
057	9/30/18 6:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
057	10/22/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	10.87	0.43	9.4	85.2	0.869	5.9	7.19	
057	10/23/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	11.77	0.44	10.26	95	0.896		7.8	
057	10/24/18 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	11.73	0.44	8.48	78.4	0.896		7.66	
057	11/4/18 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75								
057	11/5/18 9:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	10.51	0.42	9.85	88.5	0.858	5	7.38	
057	11/6/18 9:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	10.68	0.41	9.55	86.1	0.837	8.6	7.38	
057	11/7/18 9:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14								
057	11/8/18 10:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78								
066	1/18/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.21	0.21	2.01	0.59	12.29	89.3	1.195	3.5	7.15	
066	1/18/18 9:00 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.21	0.21	2.02	0.59	11.6	84.2	1.197	4.4	7.02	
066	1/29/18 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	3.07	0.59	11.22	83.9	1.188	1.9	7.1	
066	1/29/18 9:29 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.03	0.03	3.31	0.6	10.69	80.4	1.214	2.8	7.04	
066	2/13/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.69	2.52	0.66	11.73	86.4	1.33		6.32	
066	2/13/18 9:15 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.69	2.52	0.66	11.31	83.3	1.329		6.36	
066	2/27/18 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.51	4.88	0.69	11.75	92.1	1.385	2.7	7.75	
066	2/27/18 9:28 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.51	4.86	0.69	11.44	89.7	1.386	6.6	7.62	
066	3/16/18 8:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.04	3.8	0.75	11.49	87.6	1.506	3.6		
066	3/16/18 8:15 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.01	0.04	3.82	0.76	11.08	84.6	1.513	3.7		
066	3/26/18 8:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	0.08	3.91	0.76	12.06	92.3	1.523	8.3	7.72	
066	4/12/18 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.06	0.06	6.39	0.72	11.25	91.7	1.437	0.7	7.53	
066	4/23/18 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	9	1.272	11.71	101.7	0.64		7.57	
066	4/23/18 8:33 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	8.96	1.281	11.21	97.3	0.64		7.51	
066	5/8/18 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.19	15.76	0.57	9.26	93.7	1.137		7.59	
066	5/8/18 8:13 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.19	15.69	0.58	8.88	89.7	1.165		7.55	
066	5/22/18 8:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.11	19.63	0.54	8.67	95	1.079		7.49	
066	5/22/18 8:15 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.03	0.03	0.11	19.63	0.54	7.67	84	1.08		7.37	
066	6/4/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.62	0.62	0.63	19.24	0.55	7.52	81.7	1.111		7.47	
066	6/4/18 8:28 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.62	0.62	0.63	19.26	0.56	7.03	76.4	1.124		7.4	
066	6/19/18 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.14	23.02	0.56	7.19	84.1	1.126		7.66	
066	6/19/18 8:04 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.01	0.14	0.14	22.88	0.56	4.54	53	1.133		7.37	
066	7/5/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	27.6	0.53	6.18	78.7	1.075		7.71	
066	7/16/18 7:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.32	24.85	0.53	4.43	53.6	1.07		7.55	
066	7/16/18 7:55 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.01	0.01	0.32	24.65	0.53	1.94	23.4	1.066		7.33	
066	8/1/18 8:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.06	0.52	4.36	52.9	1.047		7.56	
066	8/1/18 8:22 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	25.01	0.52	3.59	43.6	1.056		7.4	
066	8/20/18 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.14	24.21	0.46	7.2	86	0.94		7.7	
066	8/20/18 7:50 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.01	0.14	24.21	0.46	5.63	67.3	0.942		7.57	
066	9/7/18 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.03	0.03	25.43	0.5	5.16	63.1	1.013		7.5	
066	9/7/18 8:16 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.03	0.03	25.33	0.49	3.59	43.8	1.004		7.38	
066	9/17/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	22.56	0.45	7.15	82.8	0.913	5.3	7.53	
066	9/17/18 8:08 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	22.51	0.45	6.35	73.5	0.913	6	7.42	
066	10/2/18 8:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	0.35	0.35								
066	10/18/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.03	12.63	0.44	10.33	97.5	0.888	2.5	7.74	
066	10/18/18 8:35 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.03	12.67	0.44	8.4	79.3	0.892	3.2	7.55	
066	11/2/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.37	0.37	11.51	0.46	8.47	77.9	0.919	4.4	7.74	
066	11/2/18 8:49 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.36	0.37	0.37	11.42	0.45	7.54	69.2	0.91	5.2	7.51	
066	11/15/18 9:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	0.46	1.56	7.24	0.41	12.56	104.3	0.825	4.2	7.58	
066	11/15/18 9:43 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.46	0.46	1.56	7.33	0.41	10.28	85.6	0.825	4.8	7.4	
066	11/27/18 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.46	1.33	2.11	5.55	0.35			0.712		7.14	
066	11/27/18 8:56 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.46	1.33	2.11	5.51	0.35			0.72		7.08	
066	12/10/18 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	2.75	0.43			0.874		7.63	
066	12/26/18 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	2.08	0.45	11.73	85.2	0.917		7.42	
056	4/24/18 9:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	11.14	0.62	11.96	109.2	1.23		7.9	
056	4/25/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.72	0.72	0.72	11.09	0.62	11.48	104.7	1.23	8.5	7.83	1.3

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
056	4/25/18 8:57 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.72	0.72	0.72	10.99	0.62	11.21	102	1.238	9.5	7.7	
056	4/26/18 9:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.21	0.93	0.93	11.45	0.51	10.79	99.1	1.02	9.1	7.66	0.6
056	4/26/18 9:56 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.21	0.93	0.93	11.37	0.51	10.87	99.7	1.02	15.8	7.54	
056	4/27/18 8:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.54	0.75	1.47	11.84	0.54	10.81	100.3	1.082	8	7.58	1
056	4/27/18 8:53 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.54	0.75	1.47	11.78	0.54	10.97	101.7	1.083	7.5	7.56	
056	4/28/18 6:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.54	0.75								
056	4/29/18 6:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.59								
056	4/30/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.25	0.25	11.99	0.56	11.04	102.7	1.116	8.2	7.8	0.5
056	4/30/18 9:02 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.2	0.25	0.25	11.98	0.56	10.56	98.3	1.118	9.9	7.69	
056	5/3/18 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.09	0.09	0.09	16.34	0.54	11.07	113.3	1.083	7	7.83	0.7
056	5/3/18 9:04 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.09	0.09	0.09	16.22	0.54	10.57	107.9	1.085	7.1	7.63	
056	5/4/18 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.09	17.55	0.54	11.4	119.7	1.078	6.8	8.1	0.7
056	5/4/18 8:57 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.09	0.09	17.44	0.54	10.27	107.5	1.075	9.5	7.64	
056	5/16/18 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1	1	17.87	0.44	6.41	67.7	0.892	11	6.83	0.6
056	5/16/18 7:52 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	1	1	17.83	0.44	5.58	58.9	0.889	12.9	7.01	
056	5/17/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1	17.13	0.52	7.25	75.4	1.047	5.4	7.4	1
056	5/17/18 9:00 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	1	17.07	0.52	6.77	70.4	1.049	7.1	7.32	
056	5/18/18 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	17.77	0.52	7.19	75.8	1.051		7.27	1.2
056	5/18/18 9:25 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	17.71	0.52	7.08	74.6	1.049		7.23	
056	5/19/18 6:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2								
056	5/20/18 6:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.28	0.28								
056	5/21/18 9:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.28	18.89	0.54	8.5	91.8	1.086	4.2	7.74	1.1
056	5/21/18 9:02 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.08	0.28	18.28	0.54	6.9	73.6	1.085	7.9	7.48	
056	6/5/18 9:09 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.34	0.96	0.96	17.5	0.5	5.55	58.2	1.002	5.7	7.6	0.8
056	6/5/18 9:09 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.34	0.96	0.96	17.42	0.5	5.08	53.2	1.008	13.5	7.4	
056	6/6/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.34	0.96	17.62	0.5	5.41	56.9	1.016	5	7.47	1.1
056	6/6/18 9:11 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.34	0.96	17.61	0.51	5.16	54.2	1.017	5.4	7.32	
056	6/7/18 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.34	18.64	0.54	8.09	86.9	1.094	4.3	7.74	1.4
056	6/7/18 9:15 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.34	18.42	0.54	5.71	61	1.094	5.8	7.46	
056	6/8/18 8:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	19.29	0.56	6.57	71.5	1.116	6.6	7.64	1.3
056	6/8/18 8:48 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	18.47	0.59	5.54	59.3	1.19	9.4	7.42	
056	6/9/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
056	6/10/18 6:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
056	7/6/18 6:53 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.35	0.35								
056	7/7/18 6:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.35								
056	7/8/18 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
056	7/9/18 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.08	0.49	7.89	95.9	1.003	5.5	8.56	2
056	7/9/18 8:49 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	24.04	0.58	5.06	60.3	1.162	8.6	8.17	
056	7/10/18 8:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25	0.51	6.74	81.8	1.041	3.3	8.45	2
056	7/10/18 8:30 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	23.85	0.6	3.29	39.1	1.202	9.4	7.88	
056	7/11/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.19	0.19	0.19	25.37	0.56	7.01	85.7	1.128	4.6	8.54	2
056	7/11/18 8:35 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.19	0.19	0.19	25.15	1.81	5.59	68.5	3.448	10.2	7.83	
056	7/17/18 8:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	2.68	2.68	2.69	25.42	0.55	6.28	76.9	1.115		8.39	2.2
056	7/17/18 8:28 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		2.68	2.68	2.69	23.27	1.12	3.99	47.1	2.18		7.77	
056	7/27/18 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.74	25.28	0.47	3.48	42.5	0.953		7.54	
056	7/28/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.6								
056	7/29/18 7:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
056	7/30/18 8:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	26.11	0.51	5.93	73.5	1.032	3.4	8.14	2.3
056	7/30/18 8:42 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	25.85	0.54	4.75	58.6	1.093	16.9	7.83	
056	7/31/18 8:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.28	0.51	6.15	75	1.043	5.2	8.24	2.3
056	7/31/18 8:35 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	25.16	0.53	4.95	60.2	1.069	4.8	7.94	
056	8/13/18 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.29	1.67	2.06	23.93	0.44	5.69	67.6	0.888		7.36	
056	8/14/18 8:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.3	1.68	23.99	0.44	6.35	75.6	0.894		7.37	
056	8/15/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.3	24.95	0.41	4.62	56	0.833	4.8	7.37	1.7
056	8/15/18 8:52 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.01	0.3	24.93	0.41	3.76	45.6	0.838	6.3	7.32	
056	8/16/18 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	25.63	0.45	4.08	50	0.914	3.6	7.32	1.2
056	8/16/18 8:36 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.01	25.61	0.45	3.68	45.1	0.915	12.8	7.27	

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056	8/17/18 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.2	0.2	0.2	26.04	0.47	6.4	79.1	0.951	3.1	8.41	2
056	8/17/18 8:27 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.2		0.2	25.91	0.47	4.71	58.1	0.955	7.2	8.1	
056	8/18/18 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.33	0.33								
056	8/19/18 6:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.14	0.34								
056	9/10/18 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.76	0.76	0.76	19.96	0.52	8.86	97.7	1.044		8	
056	9/11/18 8:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.53	1.29	1.29	19.22	0.39	6.47	70.2	0.786	3.2	7.9	
056	9/12/18 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.26	0.79	1.55	21.69	0.45	7.57	86.3	0.905	4.3	8.05	2
056	9/12/18 9:13 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.26	0.79	1.55	21.72	0.45	5.69	64.9	0.906	5	7.91	
056	9/13/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.44	0.7	1.23	21.12	0.43	7.56	85.2	0.871	5.2	7.66	
056	9/14/18 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.44	0.7	21.1	0.43	7.49	84.4	0.879	3.1	7.7	
056	9/26/18 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.28	1.52	1.52	18.61	0.32	7.57	81.1	0.653		7.65	
056	9/27/18 8:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.33	1.57	19.37	0.37	7.22	78.6	0.751	5.3	7.4	
056	9/28/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.35	0.4	0.68	18.78	0.41	9.27	99.7	0.836		7.53	
056	9/29/18 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.35	0.4								
056	9/30/18 6:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.35								
056	10/23/18 8:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.41	0.41	0.44	10.44	0.48	10.23	91.8	0.968		8.09	
056	10/24/18 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.45	0.45	10.72	0.49	9.56	86.3	0.977		7.88	
056	11/4/18 8:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.39	1.75								
056	11/5/18 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.36	1.75	10.27	0.42	10.86	97.1	0.858	3.7	7.3	
056	11/6/18 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.78	1.14	1.14	10.74	0.4	8.97	81	0.816	10.4	7.3	
056	11/7/18 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.78	1.14								
056	11/8/18 10:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.78								
177	1/18/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.21	0.21	1.97	0.81	11.32	82.2	1.619	2.9	7.03	
177	1/18/18 8:37 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.21	0.21	2.4	13.6	10.13	81.3	23.06	6.8	6.21	
177	1/29/18 9:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	4.25	0.59	12.65	97.5	1.197	1.6	7.4	
177	1/29/18 9:00 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.03	0.03	4.63	11.4	10.31	86.3	19.41	0	6.22	
177	2/13/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.69	2.42	0.64	11.55	84.8	1.288		6.96	
177	2/13/18 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.69	2.58	0.65	11.05	81.5	1.304		7.01	
177	2/27/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.51	5.58	0.7	12.82	102.4	1.388	2.4	8.17	
177	2/27/18 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.51	5.53	0.7	12.14	96.8	1.391	7.9	7.8	
177	3/16/18 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.04	4.67	0.87	13.24	103.4	1.729	4.1		
177	3/16/18 7:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.04	4.94	0.92	11.62	91.4	1.824	10.4		
177	3/26/18 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	0.08	4.64	0.76	13.25	103.3	1.522	1.2	7.93	
177	3/26/18 7:59 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.07	0.08	6.72	15.56	12.34	111.8	25.71		6.83	
177	4/12/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.06	0.06	7.6	0.73	11.84	99.5	1.456	0.7	7.89	
177	4/12/18 7:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.06	0.06	0.06	7.46	0.73	11	92.1	1.459	8.3	7.66	
177	4/23/18 8:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10.6	1.26	11.6	104.7	0.63		7.83	
177	4/23/18 8:03 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	10.35	1.264	11.16	100.1	0.63		7.59	
177	5/8/18 7:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.19	16.6	0.55	9.39	96.6	1.102		7.97	
177	5/8/18 7:48 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.19	16.56	0.56	8.73	89.8	1.126		7.69	
177	5/22/18 7:42 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.11	19.05	0.55	8.43	91.3	1.106		7.54	
177	5/22/18 7:42 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.03	0.03	0.11	18.79	0.56	7.04	75.8	1.119		7.27	
177	6/4/18 7:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.62	0.62	0.63	20.45	0.71	8.21	91.5	1.407		7.67	
177	6/4/18 7:56 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.62	0.62	0.63	20.41	1.03	6.29	70.2	2.007		7.3	
177	6/19/18 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.14	23.1	1.02	7.77	91.3	1.993		7.65	
177	6/19/18 7:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.14	0.14	22.49	3.27	3.69	43.4	6.01		7.14	
177	7/5/18 7:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	28.58	0.58	7.13	92.3	1.176		7.82	
177	7/5/18 7:18 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	27.73	0.68	4.2	53.6	1.37		7.44	
177	7/16/18 7:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.32	25.22	0.65	6.18	75.4	1.302		7.57	
177	7/16/18 7:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.32	25.02	0.83	3.16	38.4	1.653		7.26	
177	8/1/18 7:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	26.31	0.53	9.26	115.1	1.082		8.14	
177	8/1/18 7:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	25.81	0.58	5.36	66.1	1.172		7.5	
177	8/20/18 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.14	24.5	0.46	7.09	85.3	0.944		8.01	
177	8/20/18 7:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.14	24.58	0.46	4.5	54.1	0.944		7.64	
177	9/7/18 7:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	26.05	0.79	8.64	107.1	1.574		7.78	
177	9/7/18 7:44 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.03	0.03	26.92	1.24	5.83	73.6	2.413		7.43	
177	9/17/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	22.31	0.47	7.79	89.8	0.96	2.2	7.98	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
177	9/17/18 7:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	22.3	0.47	6.57	75.7	0.962	6	7.45	
177	10/2/18 7:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	0.35	0.35								
177	10/18/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.03	12.3	0.46	10.51	98.5	0.924	2.6	7.94	
177	10/18/18 7:58 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.03	12.26	0.46	8.21	76.9	0.93	8.6	7.54	
177	11/2/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.37	0.37	11.42	0.48	8.3	76.2	0.962	5.3	7.95	
177	11/2/18 8:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.36	0.37	0.37	11.32	0.47	7.29	66.8	0.956	13.4	7.56	
177	11/15/18 9:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	0.46	1.56	6.58	0.41	11.52	94.1	0.834	5.2	7.75	
177	11/15/18 9:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.46	0.46	1.56	6.53	0.41	8.8	71.8	0.835	9.8	7.35	
177	11/27/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	1.33	2.11	6.05	0.25			0.511		7.29	
177	11/27/18 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.46	1.33	2.11	6.05	0.25			0.511		7.14	
177	12/10/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	2.4	0.45			0.924		7.46	
177	12/10/18 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	2.61	0.46			0.934		7.36	
177	12/26/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	2.23	0.46	10.99	80.2	0.933		7.52	
177	12/26/18 8:45 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	2.3	0.46	10.7	78.3	0.94		7.34	
067	4/24/18 8:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	12.05	0.65	12.19	113.7	1.292		8.19	
067	4/24/18 8:48 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	11.96	0.65	12.53	116.6	1.292		8.09	
067	4/25/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.72	0.72	0.72	13.06	0.65	12.02	114.7	1.294	9	8.07	1.1
067	4/25/18 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.72	0.72	0.72	12.76	0.65	11.64	110.4	1.292	15.4	7.9	
067	4/26/18 9:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.21	0.93	0.93	12.2	0.58	10.69	100	1.16	8.5	7.65	0.6
067	4/26/18 9:37 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.21	0.93	0.93	11.91	0.58	10.46	97.3	1.168	10.3	7.51	
067	4/27/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.54	0.75	1.47	12.67	0.51	10.75	101.5	1.02	8.4	7.58	0.6
067	4/27/18 8:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.54	0.75	1.47	12.43	0.51	10.52	98.9	1.031	10.3	7.51	
067	4/28/18 6:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.54	0.75								
067	4/29/18 5:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.59								
067	4/30/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.25	0.25	12.72	0.57	11.4	107.9	1.135	9.6	7.85	0.6
067	4/30/18 8:45 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.25	0.25	12.62	0.57	11.31	106.8	1.131	11	7.78	
067	5/3/18 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.09	0.09	0.09	16.87	0.67	12.26	127	1.331	7.2	8.09	0.6
067	5/3/18 8:50 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.09	0.09	0.09	14.74	3.49	9.46	95.3	6.359	7.8	7.44	
067	5/4/18 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.09	0.09	18.84	0.62	11.8	127.3	1.231	7.1	8.05	0.6
067	5/4/18 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.09	0.09	12.78	9.15	8.79	87.9	15.61	7.4	7.3	
067	5/16/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1	1	18.99	0.57	7.25	78.4	1.134	11.3	7.1	0.8
067	5/16/18 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1	1	18.78	0.58	7.69	82.8	1.158	16.1	7.23	
067	5/17/18 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1	18.7	0.47	6.65	71.4	0.949	9.4	7.39	0.7
067	5/17/18 8:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	1	18.61	0.52	6.04	64.8	1.043	10.2	7.28	
067	5/18/18 9:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	18.53	0.48	6.61	70.8	0.978		7.26	0.8
067	5/18/18 9:07 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.41	2.18	5.32	57.4	4.096		7.02	
067	5/19/18 6:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2								
067	5/20/18 6:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.28	0.28								
067	5/21/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.28	18.83	0.67	9.74	105.1	1.327	5.4	7.8	0.6
067	5/21/18 8:46 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.28	18.48	1.1	7.34	78.8	2.136	8.3	7.53	
067	6/5/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.34	0.96	0.96	18.48	1.65	7.61	82	3.139	9.7	7.61	0.4
067	6/5/18 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.34	0.96	0.96	18.81	2.47	5.76	62.8	4.603	12.3	7.42	
067	6/6/18 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.34	0.96	18.01	1.16	8.16	86.8	2.245	7.3	7.57	0.5
067	6/6/18 8:51 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.34	0.96	18.58	1.98	6.56	71	3.745	11.3	7.4	
067	6/7/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.34	18.65	0.93	7.92	85.3	1.825	7.9	7.52	0.4
067	6/7/18 8:56 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.34	18.47	1.43	6.9	74.2	2.739	12.4	7.39	
067	6/8/18 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	18.77	1.04	8.97	96.8	2.037	10.2	7.82	0.5
067	6/8/18 8:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.75	1.69	6.24	67.6	3.227	13.8	7.52	
067	6/9/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
067	6/10/18 6:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
067	7/6/18 6:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.35	0.35								
067	7/7/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.35								
067	7/8/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35								
067	7/9/18 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	24.87	0.98	11.84	143.7	1.939	8.8	8.94	0.8
067	7/9/18 8:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	25.13	3.86	4.69	58.1	7.043	13	7.74	
067	7/10/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	25.57	1.07	11.9	146.4	2.105	6.4	9.1	0.7
067	7/10/18 8:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	24.98	4.24	2.23	27.7	7.679	16.2	7.8	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
067	7/11/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.19	0.19	0.19	26.28	1.07	10.35	129	2.105	6.5	8.85	0.8
067	7/11/18 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.19	0.19	0.19	24.1	7.84	2.95	36.8	13.58	4.4	7.79	
067	7/17/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	2.68	2.68	2.69	26.92	1.27	10.53	132.8	2.473		8.59	0.6
067	7/17/18 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		2.68	2.68	2.69	26.14	2.83	4.78	60.1	5.272		7.88	
067	7/27/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.74	25.97	0.75	7.2	89.1	1.499		7.95	
067	7/27/18 7:16 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.6	0.74	26.17	1	6.47	80.5	1.972		7.82	
067	7/28/18 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.6								
067	7/29/18 7:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
067	7/30/18 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	26.6	0.8	11.45	143.3	1.591	7.7	8.85	0.5
067	7/30/18 8:26 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	26.44	1.13	8.32	104	2.214	12	8.43	
067	7/31/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	26.1	0.81	10.46	129.8	1.617	9.2	8.84	0.6
067	7/31/18 8:15 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	26.01	1.34	7.16	88.9	2.61	22.6	8.16	
067	8/13/18 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	1.67	2.06	23.05	0.37	5.83	68.1	0.765		7.58	
067	8/14/18 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.3	1.68	23.37	0.37	6.58	77.4	0.76		7.49	
067	8/14/18 8:31 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.3	1.68	23.28	0.37	4.82	56.6	0.757		7.36	
067	8/15/18 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.3	24.8	0.42	5.02	60.7	0.864	7.2	7.41	1.1
067	8/15/18 8:38 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.3	24.61	0.44	3.71	44.7	0.905	10.9	7.34	
067	8/16/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	25.77	0.45	6.29	77.4	0.91	6.6	7.46	0.6
067	8/16/18 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	25.66	0.46	6.03	74	0.93	19.5	7.39	
067	8/17/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	26.53	0.48	10.65	132.9	0.976	7.3	8.67	0.5
067	8/17/18 8:15 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.2	0.2	26.4	0.68	5.76	71.7	1.365	13	8.09	
067	8/18/18 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.33	0.33								
067	8/19/18 6:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.34								
067	9/10/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.76	0.76	0.76	20.47	1.68	8.77	98.3	3.203		7.76	
067	9/11/18 10:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.53	1.29	1.29	19.77	0.01	8.8	96.4	0.032	4	7.92	
067	9/12/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.26	0.79	1.55	20.45	0.66	9.53	106.2	1.322	6.1	8.09	1
067	9/12/18 8:56 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.26	0.79	1.55	20.31	1.35	8.25	92	2.602	11.5	7.87	
067	9/13/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.44	0.7	1.23	20.35	0.46	7.37	81.8	0.93	2.7	7.72	
067	9/14/18 8:06 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.44	0.7	20.92	0.48	7.9	88.7	0.971	2.5	7.91	
067	9/26/18 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.28	1.52	1.52	17.75	0.46	8.96	94.4	0.93		7.54	
067	9/26/18 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.28	1.52	1.52	17.42	0.46	8.96	93.8	0.93		7.5	
067	9/27/18 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.33	1.57	19.35	0.34	8.4	91.4	0.7	6.7	7.61	
067	9/28/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.4	0.68	19.21	0.37	7.35	79.8	0.75		7.46	
067	9/29/18 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.4								
067	9/30/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35								
067	10/23/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.41	0.41	0.44	9.46	0.75	11.36	99.8	1.476		8.2	
067	10/23/18 8:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.41	0.41	0.44	10.42	1.33	10.12	91.2	2.558		7.91	
067	10/24/18 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.45	0.45	9.89	0.78	11.07	98.3	1.534		8	
067	10/24/18 8:38 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.04	0.45	0.45	10.06	1.04	10.65	95.1	2.024		7.84	
067	11/4/18 8:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.39	1.75								
067	11/5/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.36	1.75	9.19	0.42	8.1	70.5	0.857	8.6	7.07	
067	11/6/18 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.78	1.14	1.14	10.18	0.44	9.42	84	0.887	5.9	7.33	
067	11/7/18 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.78	1.14								
067	11/8/18 9:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.78								
059	4/25/18 8:19 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.72	0.72	0.72	13.18	0.68	11.98	114.6	1.343	8.6	8.31	1
059	4/25/18 8:19 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.72	0.72	0.72	13.21	0.68	12	114.9	1.34	8.9	8.19	
059	4/26/18 9:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.21	0.93	0.93	13.01	0.69	10.67	101.8	1.377	13.9	8.1	1
059	4/26/18 9:15 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.21	0.93	0.93	13	0.69	10.47	99.8	1.369	9.6	7.8	
059	4/27/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.54	0.75	1.47	13.3	0.59	10.96	105.1	1.172	8.8	8.13	0.7
059	4/27/18 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.54	0.75	1.47	12.65	0.53	10.58	100	1.056	10.4	7.88	
059	4/30/18 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.25	0.25	13.29	0.66	11.91	114.2	1.304	9.3	8.51	0.6
059	4/30/18 8:26 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.25	0.25	13.03	0.67	11.63	110.9	1.323	16.6	8.29	
059	5/3/18 8:33 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.09	0.09	0.09	16.76	0.75	12.34	127.6	1.484	7.5	8.3	0.6
059	5/3/18 8:33 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.09	0.09	0.09	16.42	0.82	12.28	126.1	1.619	8.8	8.16	
059	5/4/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.09	0.09	18.85	0.69	11.93	128.7	1.373	6.5	8.46	0.6
059	5/4/18 8:18 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.09	0.09	18.65	0.74	11.7	125.8	1.466	8	8.17	
059	5/16/18 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1	1	19.16	0.87	8.27	89.9	1.718	9.8	7.29	0.6

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
059	5/16/18 8:36 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1	1	19.19	0.93	7.92	86.2	1.833	13.4	7.34	
059	5/17/18 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1	18.77	0.74	7.95	85.6	1.458	14.9	7.7	0.8
059	5/17/18 8:22 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	1	18.78	0.75	7.44	80.2	1.481	10.2	7.6	
059	5/18/18 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	18.69	0.63	6.65	71.5	1.249		7.78	1
059	5/18/18 8:46 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.61	0.64	6.18	66.3	1.282		7.74	
059	5/21/18 8:27 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1		0.08	0.28	18.72	0.75	9.78	105.3	1.492	6.5	8.03	0.9
059	5/21/18 8:27 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.28	18.73	0.9	9.46	101.9	1.769	8.1	7.9	
059	6/5/18 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.34	0.96	0.96	18.37	2.02	8.5	91.6	3.803	9.1	7.94	0.5
059	6/5/18 8:28 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.34	0.96	0.96	18.47	2.43	7.91	85.5	4.525	17.6	7.75	
059	6/6/18 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1		0.34	0.96	17.99	1.56	9.58	102.1	2.977	8.1	8.25	0.5
059	6/6/18 8:31 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.34	0.96	18.28	1.99	8.56	92	3.759	8.4	7.92	
059	6/7/18 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.34	18.52	1.49	9.45	101.8	2.861	9.5	8.13	0.5
059	6/7/18 8:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.34	18.33	1.7	8.81	94.6	3.228	10.7	7.79	
059	6/8/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	18.71	1.38	9.98	107.9	2.647	10.4	8.42	0.4
059	6/8/18 8:15 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.48	1.53	9.62	103.5	2.931	11.4	8.08	
059	7/9/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1		0	0	24.79	1.29	11.86	144	2.506	7.5	9.11	1
059	7/9/18 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	24.68	1.45	11.81	143.2	2.805	8.7	9.02	
059	7/10/18 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	25.61	1.21	12.01	147.9	2.362	5.8	9.22	0.8
059	7/10/18 8:12 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	25.25	2.39	10.49	129.3	4.488	9.7	8.78	
059	7/11/18 8:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.19	0.19	0.19	26.31	1.21	10.33	128.9	2.363	6	9.01	0.8
059	7/11/18 8:07 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.19	0.19	0.19	26.29	1.35	9.25	115.5	2.62	9	8.81	
059	7/17/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	2.68	2.68	2.69	26.82	1.58	11.46	144.7	3.049		8.92	0.6
059	7/17/18 7:58 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		2.68	2.68	2.69	26.47	2.3	9.65	121.5	4.341		8.57	
059	7/30/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	26.48	1.24	10.37	129.8	2.418	7.5	8.76	0.6
059	7/30/18 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	26.28	1.25	10.42	130	2.436	12.9	8.78	
059	7/31/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1		0	0	25.88	1.22	10.25	126.9	2.373	9.2	8.82	0.5
059	7/31/18 8:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	25.85	1.48	9.84	121.9	2.856	9.4	8.73	
059	8/15/18 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.3	24.3	0.5	6.01	72	1.023	7.7	8.1	1
059	8/15/18 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.3	24.1	0.8	4.83	57.8	1.599	10.6	7.81	
059	8/16/18 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	25.7	0.53	7.65	94.1	1.066	7.3	7.47	0.6
059	8/16/18 9:01 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	25.58	0.53	7.54	92.5	1.081	9.7	7.46	
059	8/17/18 8:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2	26.52	0.58	10.87	135.7	1.177	6.9	8.97	0.7
059	8/17/18 8:00 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.2	0.2	25.57	1.82	6.38	78.8	3.468	12.5	8.15	
059	9/12/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.26	0.79	1.55	20.7	1.03	9.36	105	2.024	9	8.71	0.6
059	9/12/18 8:37 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.26	0.79	1.55	20.66	1.09	9.52	106.7	2.124	9.8	8.34	
176	4/24/18 7:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	11.59	0.72	11.59	107	1.434		8.15	
176	4/25/18 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.72	0.72	0.72	13.24	0.66	11.58	111	1.319	7.3	7.83	1.3
176	4/25/18 8:27 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.72	0.72	0.72	13.08	0.68	11.2	106.9	1.348	17.7	7.73	
176	4/26/18 9:23 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.21	0.93	0.93	12.39	0.48	10.07	94.5	0.965	12.2	7.69	0.5
176	4/26/18 9:23 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.21	0.93	0.93	12.35	0.56	9.35	87.7	1.129	19.8	7.52	
176	4/27/18 8:22 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.54	0.75	1.47	13.96	0.42	10.17	98.9	0.84	10	7.62	0.7
176	4/27/18 8:22 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.54	0.75	1.47	12.89	0.88	9.15	87.1	1.724	10.9	7.36	
176	4/28/18 6:11 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.54	0.75								
176	4/29/18 5:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.05	0.59								
176	4/30/18 8:33 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.25	0.25	13.42	0.55	11.07	106.4	1.104	7.6	7.93	0.6
176	4/30/18 8:33 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.2	0.25	0.25	12.66	6.81	9.08	89.2	11.87	27.5	7.22	
176	5/3/18 8:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.09	0.09	0.09	17.77	0.65	10.74	113.3	1.289	6.5	7.72	0.5
176	5/3/18 8:40 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.09	0.09	0.09	17.19	0.66	9.94	103.7	1.318		7.51	
176	5/4/18 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.09	0.09	19.17	0.65	10.5	114	1.299	8.3	7.87	0.6
176	5/4/18 8:27 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.09	0.09	17.06	1.11	8.57	89.4	2.161	21.8	7.43	
176	5/16/18 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1	1	19.22	0.46	5.74	62.3	0.922	17.4	7.02	0.3
176	5/16/18 8:26 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	1	1	19.42	1.02	5.49	60	1.986	29.3	7.1	
176	5/17/18 8:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1	18.65	0.59	5.97	64.1	1.174	10.3	7.39	0.6
176	5/17/18 8:30 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	1	18.67	0.61	4.36	46.9	1.219	12.5	7.17	
176	5/18/18 8:54 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	18.68	0.58	5.29	56.8	1.166		7.28	0.7
176	5/18/18 8:54 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	18.57	1.82	4.57	49.4	3.446		7.1	
176	5/19/18 5:42 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.2	0.2								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
176	5/20/18 6:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.08	0.28	0.28								
176	5/21/18 8:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.08	0.28	19.3	1.03	7.38	80.5	2.012	6.7	7.59	0.5
176	6/5/18 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.34	0.96	0.96	17.71	1.41	6.75	71.4	2.709	10.4	7.57	0.4
176	6/5/18 8:37 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.34	0.96	0.96	19.57	3.48	4.66	51.9	6.357	14.2	7.29	
176	6/6/18 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.34	0.96	17.37	1.26	6.96	73.1	2.437	9.1	7.63	0.4
176	6/6/18 8:38 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.34	0.96	17.45	1.32	5.73	60.3	2.547	9.8	7.48	
176	6/7/18 8:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.34	18.66	1.72	7.36	79.6	3.263	11.9	7.42	0.4
176	6/7/18 8:43 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.34	18.4	1.73	6.23	67	3.285	13.1	7.35	
176	6/8/18 8:21 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	19.13	1.59	8.39	91.6	3.036	12.7	7.71	0.3
176	6/8/18 8:21 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	18.72	1.61	7.88	85.3	3.077	13.8	7.64	
176	6/9/18 6:41 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0								
176	6/10/18 6:10 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0								
176	7/6/18 6:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.35	0.35	0.35								
176	7/7/18 6:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.35	0.35								
176	7/8/18 6:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.35								
176	7/9/18 8:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	24.9	1	10.03	121.8	1.966	7.8	8.58	
176	7/10/18 8:16 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	25.41	1.06	10.2	125.1	2.088	6.3	8.66	0.9
176	7/10/18 8:16 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	25.28	1.14	9.34	114.4	2.229	8.6	8.52	
176	7/11/18 8:12 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.19	0.19	0.19	26.63	1.01	9.49	119	2.001	6.3	8.59	0.9
176	7/11/18 8:12 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.19	0.19	0.19	25.36	4.79	6.42	80.4	8.603	10.8	7.89	
176	7/17/18 8:03 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	2.68	2.68	2.69	26.25	1.56	10.58	132.1	3.016		8.57	0.5
176	7/27/18 6:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.6	0.74	25.27	0.54	6.99	85.2	1.086		7.11	
176	7/28/18 6:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.6								
176	7/29/18 7:06 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0								
176	7/30/18 8:17 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	26.46	0.77	10.62	132.5	1.54	7.4	8.72	0.5
176	7/31/18 8:07 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	26.41	0.89	10.66	133.1	1.767	8.4	8.61	0.5
176	7/31/18 8:07 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	25.94	0.97	9.85	122	1.921	8.8	8.42	
176	8/13/18 7:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.29	1.67	2.06	21.95	0.29	5.92	67.8	0.593		7.9	
176	8/14/18 10:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.3	1.68	23.72	0.51	7.46	88.5	1.03		7.61	
176	8/15/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	0.3	23.93	0.37	5.27	62.7	0.752	9.4	7.7	0.8
176	8/15/18 8:18 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.01	0.3	23.89	0.58	3.67	43.6	1.164	10.6	7.45	
176	8/16/18 8:57 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.01	25.77	0.4	7.97	98	0.817	6.9	7.54	0.7
176	8/16/18 8:57 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.01	24.54	0.47	4.92	59.1	0.955	10.6	7.36	
176	8/17/18 8:05 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.2	0.2	0.2	26.37	0.45	11.31	140.6	0.911	8.3	8.78	0.6
176	8/17/18 8:05 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.2	0.2	0.2	25.71	0.44	8.32	102.3	0.903	17.3	8.44	
176	8/18/18 6:45 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.13	0.33	0.33								
176	8/19/18 6:10 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.14	0.34								
176	9/10/18 7:49 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.76	0.76	0.76	19.84	2.18	9.59	106.5	4.098		7.85	
176	9/11/18 10:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.53	1.29	1.29	19.84	0.61	7.42	81.6	1.228	5.8	7.47	
176	9/12/18 8:44 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.26	0.79	1.55	20.17	0.47	9.13	101.1	0.953	9.2	8.32	0.7
176	9/12/18 8:44 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.26	0.79	1.55	20.06	2.12	6.99	78	3.989	11.6	7.81	
176	9/13/18 8:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.44	0.7	1.23	19.93	0.83	7	77.3	1.633	4.5	7.92	
176	9/14/18 10:19 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.44	0.7	21.24	0.84	10.03	113.5	1.656	10	7.79	
176	9/26/18 10:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.28	1.52	1.52	18.99	0.28	8.12	87.6	0.567		7.54	
176	9/27/18 7:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.33	1.57	19.62	0.23	7.12	77.8	0.473	11.4	8.03	
176	9/28/18 7:59 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.35	0.4	0.68	19.2	0.48	9.25	100.4	0.974		8.1	
176	9/29/18 7:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.35	0.4								
176	9/30/18 6:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.35								
176	10/23/18 10:17 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.41	0.41	0.44	10.06	0.96	11.21	100.1	1.875		7.65	
176	10/24/18 10:36 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.04	0.45	0.45	9.47	0.44	11.17	98	0.895		7.56	
176	11/4/18 7:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1.39	1.75								
176	11/5/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.36	0.36	1.75	10.64	0.32	9.1	82	0.659	5.4	6.66	
176	11/6/18 8:18 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.78	1.14	1.14	10.4	0.38	7.21	64.6	0.77	10.3	6.72	
176	11/7/18 8:08 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.78	1.14								
176	11/8/18 9:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.78								
167	1/29/18 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	2.16	0.75	12.6	91.9	1.517	2.2	6.96	
167	1/29/18 8:36 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.03	0.03	2.62	26.27	8.94	78.6	42.16	19	6.21	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
167	2/13/18 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.69	2.74	0.9	12.15	90.1	1.786		7.18	
167	2/13/18 8:23 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.69	2.41	18.93	10.5	87.4	31.27		6.75	
167	2/27/18 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.51	5.79	0.86	12.05	96.8	1.7	3.2	7.27	
167	2/27/18 8:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.51	4.85	19.47	7.86	69.8	31.77	15.2	6.75	
167	3/16/18 7:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.04	3.62	1.23	12.01	91.4	2.4	5.3		
167	3/16/18 7:09 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.04	4.29	7.73	10.85	87.9	13.54	12.1		
167	3/26/18 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	0.08	4.8	1.08	13.18	103.4	2.121	2.8	7.42	
167	3/26/18 7:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.07	0.08	3.9	26.95	10.16	92.7	42.91	10.5	6.8	
167	4/12/18 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.06	0.06	7.33	0.8	11.86	99	1.574	5.7	7.31	
167	4/12/18 7:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.06	0.06	0.06	6.22	20.03	9.81	90.4	32.46	5.8	6.81	
167	4/23/18 7:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	11.3	1.354	12.35	113.3	0.68		7.67	
167	4/23/18 7:38 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	8.99	28.86	10.38	100.7	17.74		7.89	
167	4/24/18 8:33 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	12.09	0.71	12.48	116.6	1.402		8.48	
167	4/24/18 8:33 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	8.75	21.03	9.74	96	33.74		7.8	
167	4/25/18 8:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.72	0.72	0.72								1
167	4/26/18 9:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.21	0.93	0.93								0.9
167	4/27/18 8:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.54	0.75	1.47								0.6
167	4/28/18 6:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.54	0.75								
167	4/29/18 5:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.59								
167	4/30/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.25	0.25								1
167	5/3/18 8:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.09	0.09	0.09								0.6
167	5/4/18 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.09	0.09								0.6
167	5/8/18 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.19	17.76	0.81	10.75	113.5	1.6	7.26		
167	5/8/18 7:22 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.19	9.87	26.3	8.81	92.1	41.27	7.87		
167	5/16/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1	1								0.7
167	5/17/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	1								0.8
167	5/18/18 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.8
167	5/19/18 5:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.2	0.2	0.2								
167	5/20/18 6:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.28	0.28								
167	5/21/18 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.28								0.9
167	5/22/18 7:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.11	19.96	0.87	10.06	111.1	1.718	7.43		
167	5/22/18 7:18 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.03	0.03	0.11	12.76	26.04	7.1	78.8	40.74	7.29		
167	6/4/18 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.62	0.62	0.63	20.53	2.46	8.71	98.2	4.594	7.38		
167	6/4/18 7:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.62	0.62	0.63	17.11	23.06	4.21	50.2	36.4	7.3		
167	6/5/18 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.34	0.96	0.96								0.6
167	6/6/18 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.34	0.96								0.5
167	6/7/18 8:27 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.34								0.4
167	6/8/18 8:11 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.5
167	6/9/18 6:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
167	6/10/18 6:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
167	6/19/18 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.14	23.61	2.16	7.8	93.1	4.073	7.22		
167	6/19/18 7:12 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.14	0.14	14.85	28.53	5.77	67.9	44.17	7.56		
167	7/5/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	28.65	0.86	9.79	127.1	1.718	8.28		
167	7/5/18 6:55 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	18.59	25.88	4.96	61.9	40.4	7.47		
167	7/6/18 6:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.35	0.35								
167	7/7/18 6:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.35								
167	7/8/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35								
167	7/9/18 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								1
167	7/10/18 8:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								1
167	7/11/18 8:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.19	0.19	0.19								1.1
167	7/16/18 6:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.32	25.72	1.56	10.15	125.5	3.001	7.26		
167	7/16/18 6:58 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.32	19.21	25.47	3.3	41.5	39.82	7.22		
167	7/17/18 7:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		2.68	2.68	2.69								0.7
167	7/27/18 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.74	26.04	1.33	7.59	94.3	2.586	7.46		
167	7/28/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.6								
167	7/29/18 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
167	7/30/18 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.6

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
167	7/31/18 7:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.6
167	8/1/18 7:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	25.75	1.42	9.66	119.4	2.745		7.85	
167	8/1/18 7:21 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.62	29.94	1.86	23.8	46.07		7.19	
167	8/13/18 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	1.67	2.06	23.63	0.85	6.15	72.9	1.678		7.58	
167	8/13/18 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.29	1.67	2.06	23.36	1.07	5.37	63.4	2.102		7.34	
167	8/14/18 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.3	1.68	23.03	0.44	6	70.1	0.895		7.8	
167	8/15/18 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.3								1
167	8/16/18 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01								0.6
167	8/17/18 8:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.2	0.2	0.2								0.6
167	8/18/18 6:55 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.33	0.33								
167	8/19/18 6:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.14	0.34								
167	8/20/18 7:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.14	24.33	0.72	9.82	117.9	1.447		7.94	
167	8/20/18 7:14 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	0.14	20.01	24.9	3.85	49	39.03		7.29	
167	9/7/18 7:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.03	0.03	25.99	2.12	8.8	109.7	4.015		7.22	
167	9/7/18 7:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.03	0.03	21	29.2	2.29	30.5	45.05		7.01	
167	9/10/18 8:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.76	0.76	0.76	20.34	2.53	8.35	93.9	4.722		7.78	
167	9/11/18 10:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.53	1.29	1.29	20.03	1.68	9.93	110.3	3.199	9.4	7.91	
167	9/12/18 8:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.26	0.79	1.55								0.7
167	9/13/18 8:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.44	0.7	1.23	20.27	0.87	8.5	94.5	1.712	3.2	8.03	
167	9/14/18 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.44	0.7	20.72	0.82	9.33	104.5	1.616	6.8	8.46	
167	9/17/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	22.17	0.9	11.86	136.8	1.768	7.5	8.34	
167	9/17/18 7:16 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	19.63	27.78	2.72	35	43.07	8.4	7.35	
167	9/26/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.28	1.52	1.52	18.04	0.59	8.42	89.3	1.182		7.78	
167	9/27/18 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.33	1.57	19.51	0.5	9.18	100.3	1.013	8.1	7.9	
167	9/28/18 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.35	0.4	0.68	19.41	0.42	8.65	94.2	0.855		7.77	
167	9/29/18 7:11 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.35	0.4								
167	9/30/18 6:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.35								
167	10/2/18 7:16 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.29	0.35	0.35								
167	10/18/18 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.03	12.19	1.06	9.42	88.4	2.062	3.6	7.17	
167	10/18/18 7:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.03	15.3	23.92	5.47	63.2	37.65	4.8	7.1	
167	10/23/18 7:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.41	0.41	0.44	9.37	1.21	11.05	97.2	2.348		8.31	
167	10/24/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.45	0.45	12.16	24.04	8.35	90.4	37.9		7.19	
167	11/2/18 8:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.37	0.37	11.06	0.43	8.81	80.2	0.866	5.8	6.73	
167	11/2/18 8:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.36	0.37	0.37	10.97	28.31	7.49	81.2	44.03	10.2	7.57	
167	11/4/18 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.39	1.75								
167	11/5/18 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.36	1.75	10.34	0.42	9.67	86.5	0.855	10.1	7.17	
167	11/6/18 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.78	1.14	1.14	10.39	0.44	9.37	84	0.897	9.9	7.3	
167	11/7/18 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.78	1.14								
167	11/8/18 9:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.78								
167	11/15/18 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	0.46	1.56	5.28	0.39	11.46	90.6	0.805	6.7	7.84	
167	11/15/18 8:56 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.46	0.46	1.56	7.06	9.58	8.68	76.3	16.42	15.6	7.28	
167	11/27/18 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.46	1.33	2.11	5.94	0.45	11.01	88.6	0.92		7.09	
167	11/27/18 8:18 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.46	1.33	2.11	5.9	0.61	10.83	87.1	1.232		7.18	
052	4/24/18 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10.68	21.98	9.82	101.7	35		7.75	
052	4/25/18 9:23 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.72	0.72	0.72	11.03	12.15	10.9	106.9	20.31	6.4	8.01	1.6
052	4/25/18 9:23 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.72	0.72	0.72	7.85	29.17	9.79	99.6	45.52	5.8	8	
052	4/26/18 9:00 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.93	0.93	10.3	16.8	10.24	101.7	27.39	5.2	8.04	1.5
052	4/26/18 9:00 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.21	0.93	0.93	7.57	29.33	9.67	97.8	45.77	4.7	8.07	
052	4/27/18 7:58 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.54	0.75	1.47	10.01	19.13	10.48	104.9	30.86	6.3	8.09	2.5
052	4/27/18 7:58 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4	0.54	0.75	1.47	7.03	29.52	9.86	98.7	46.11	4	8.04	
052	4/30/18 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.25	0.25	9.75	18.9	10.74	106.8	30.54	5.3	7.99	1.7
052	4/30/18 8:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.5	0.2	0.25	0.25	7.53	29.03	10.01	101	45.35	3	7.97	
052	5/3/18 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.09	0.09	0.09	13.21	13.67	10.83	112.4	22.61	4.7	8.07	1.3
052	5/3/18 8:21 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.09	0.09	0.09	9.61	27.16	10.79	112.7	42.5	8	8.13	
052	5/4/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.09	0.09	14.02	13.87	11.08	117.2	22.89	7.3	8.09	1.1
052	5/4/18 8:09 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.09	0.09	11.58	21.06	10.85	113.9	33.63	6.5	8.09	
052	5/16/18 8:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1	1	15.58	13.95	6.88	75.2	23	8.1	7.08	1.3

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
052	5/16/18 8:42 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.2	0	1	1	10.87	28.2	7.29	78.9	43.88	6.6	7.69	
052	5/17/18 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1	15.58	12.79	8.6	93.3	21.25	7.2	7.68	1
052	5/17/18 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	1	11.7	26.42	7.86	85.6	41.32	6.9	7.84	
052	5/18/18 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	17.53	4.91	9.72	104.8	8.752		8.07	0.9
052	5/18/18 8:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	13.92	19.64	7.45	81.5	31.48		7.62	
052	5/21/18 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.28	12.6	26.17	8.32	92.2	40.92	3.8	7.86	2.1
052	5/21/18 8:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.08	0.28	11.38	29.4	7.71	84.9	45.53	6.3	7.88	
052	6/5/18 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.34	0.96	0.96	15.95	23.08	7.46	86.9	36.43	5.1	7.76	1.4
052	6/5/18 8:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0.34	0.96	0.96	14.93	29.17	7.19	85.1	45.04	8.7	7.8	
052	6/6/18 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.34	0.96	16.58	24.32	8.96	106.5	38.2	3.2	7.88	2.7
052	6/6/18 8:21 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.8	0	0.34	0.96	14.75	29.5	7.89	93.3	45.52	6.4	7.8	
052	6/7/18 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.34	16.65	25.77	8.62	103.4	40.25	4.1	7.87	1.3
052	6/7/18 8:25 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.4	0	0	0.34	15.15	29.04	7.53	89.5	44.87	5.4	7.79	
052	6/8/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	16.75	26.73	8.96	108.3	41.6	5.6	7.92	1.5
052	6/8/18 8:05 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.6	0	0	0	15.15	29.26	7.53	89.6	45.17	7.9	7.79	
052	7/9/18 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	19.18	28.62	8.63	110.7	44.23	6.5	7.88	1.8
052	7/9/18 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.3	0	0	0	16.94	30.76	7.7	95.8	47.21	6.2	7.81	
052	7/10/18 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	18.45	29.14	8.56	108.6	44.96	4.1	7.93	2
052	7/10/18 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.7	0	0	0	16.63	30.85	7.2	89.1	47.33	9.3	7.81	
052	7/11/18 7:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	18.58	28.03	8.57	108.3	43.41	4.6	7.91	2.1
052	7/11/18 7:56 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	5.4	0.19	0.19	0.19	16.33	30.95	7.26	89.4	47.48	6.9	7.79	
052	7/17/18 7:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	2.68	2.68	2.69	20.7	22.83	7.97	101.6	36.08		7.85	1.4
052	7/17/18 7:48 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		2.68	2.68	2.69	17.67	30.66	7.12	89.8	47.06		7.72	
052	7/25/18 1:35 PM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.14	0.14	0.17								
052	7/25/18 1:35 PM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.4	0.14	0.14	0.17								
052	7/27/18 7:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.74	22.93	15.91	6.1	77.8	26.01		7.26	
052	7/30/18 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	22.16	18.25	6.82	86.9	29.46	5.2	7.85	1
052	7/30/18 8:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	18.43	30.74	5.57	71.3	47.17	10.9	7.69	
052	7/31/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	21.63	20.14	6.82	87.1	32.22	6.8	7.77	1
052	7/31/18 7:51 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	19.58	29.96	7.49	97.5	46.1	6.5	7.85	
052	8/13/18 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.29	1.67	2.06	22.51	5.69	6.72	80.2	10.08		6.98	
052	8/14/18 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.3	1.68	22.32	5.94	6.45	76.8	10.49		7.23	
052	8/15/18 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	0.3	21.02	15.46	6.17	75.8	25.31	6.8	7.73	1.2
052	8/15/18 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.01	0.3	18.82	22.09	4.74	58	35.01	9	7.52	
052	8/16/18 9:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	21.47	16.88	5.32	66.4	27.44	6.2	7.05	1
052	8/16/18 9:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0.01	18.68	28.7	4.99	63.4	44.35	11.3	7.17	
052	8/17/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.2	0.2	19.56	26.18	6.77	86.2	40.82	4.6	7.77	1.7
052	8/17/18 7:51 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.2	0.2	0.2	18.15	29.79	4.46	56.4	45.86	9.8	7.58	
052	9/10/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.76	0.76	0.76	18.9	20.23	8.46	102.6	32.32		7.06	
052	9/11/18 10:15 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.53	1.29	1.29	20.99	16.52	8.12	100.2	26.9	2.8	7.43	
052	9/12/18 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.26	0.79	1.55	20.29	9.9	7.51	88.1	16.81	8	8.09	1
052	9/12/18 8:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.26	0.79	1.55	19.83	22.58	6	75.1	35.72	9.6	7.75	
052	9/13/18 8:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.44	0.7	1.23	20.48	11.04	5.46	64.7	18.58	7.1	7.23	
052	9/14/18 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.44	0.7	20.09	16.56	7.02	85.2	26.94	4.1	7.6	
052	9/26/18 8:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.28	1.52	1.52	18.42	12.7	7.65	87.9	21.12		6.94	
052	9/27/18 7:53 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.33	1.57	19.32	8.37	7.27	82.8	14.39	7.5	7.03	
052	9/28/18 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.35	0.4	0.68	19.11	5.72	8.73	97.6	10.09		7.01	
052	10/23/18 7:51 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.41	0.41	0.44	11.08	20.01	9.52	98.1	32.11		7.42	
052	10/24/18 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.45	0.45	9.65	1.11	10.86	96	2.15		8.2	
069	4/24/18 7:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	9.35	22.99	9.67	97.8	36.55		7.8	
069	4/24/18 7:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	8.07	29.25	9.68	99	45.6		7.99	
069	4/25/18 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.72	0.72	0.72	10.57	14	10.74	105.4	23.17	6.1	8.07	2
069	4/25/18 8:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.72	0.72	0.72	8.49	28.66	9.76	100.4	44.73	7.4	8.03	
069	4/26/18 8:49 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.93	0.93	10.35	21.12	9.92	101.4	33.77		8.01	2
069	4/26/18 8:49 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0.21	0.93	0.93	7.76	29.36	9.76	99.2	45.79	9.4	8.06	
069	4/27/18 7:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.54	0.75	1.47	8.98	22.57	10.49	104.9	35.96	4.6	8.06	2.6
069	4/27/18 7:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.5	0.54	0.75	1.47	6.92	29.61	10.01	99.9	46.25	6.4	8.07	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
069	4/30/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.25	0.25	8.63	23.51	10.64	106.2	37.35	7.4	7.99	1.6
069	4/30/18 8:09 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.2	0.25	0.25	7.69	28.8	10.11	102.2	45.01	7.5	7.98	
069	5/3/18 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.09	0.09	0.09	12.21	20.66	10.47	111.1	33.01	8.7	8.1	
069	5/4/18 7:59 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.09	0.09	13.06	22.6	10.6	115.9	35.81	3.9	8.06	
069	5/4/18 7:59 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.09	0.09	8.75	29.3	11.2	116.4	45.6	9.2	8.12	
069	5/16/18 8:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1	1	15.18	18.11	8.42	93.6	29.22	7.6	7.7	1.1
069	5/16/18 8:54 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	1	1	10.93	28.96	8.38	91.2	44.94	4.4	7.83	
069	5/17/18 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1	14.2	18.47	8.98	98.1	29.77	5.2	7.81	
069	5/18/18 8:22 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	14.89	18.18	9.83	108.7	29.33		7.91	1
069	5/18/18 8:22 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	11.2	28.96	8.91	97.5	44.92		7.9	
069	5/21/18 8:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.28	13.41	26.3	8.89	100.2	41.07	3.3	7.91	
069	6/5/18 8:09 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.34	0.96	0.96	16.09	27.42	9.24	110.8	42.58	4.2	7.98	
069	6/5/18 8:09 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.34	0.96	0.96	15.5	28.63	9.22	110	44.28	5.1	8	
069	6/6/18 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.34	0.96	16.18	25.07	9.29	110	39.26	3.1	7.93	
069	6/6/18 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.34	0.96	15.75	28.69	8.87	106.5	44.36	3.4	7.9	
069	6/7/18 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.34	16.49	26.86	9.49	114.3	41.79	3.1	8.01	
069	6/7/18 8:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0.34	16.21	27.72	9.43	113.5	43	5.9	7.96	
069	6/8/18 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	16.78	27.19	9.26	112.4	42.25	5.5	8.01	1.7
069	6/8/18 7:55 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	15.67	28.53	9.06	108.5	44.14	6.3	7.92	
069	7/9/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	19.47	29.72	9.22	119.6	45.76	5.6	7.96	0.9
069	7/9/18 8:03 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	18.57	30.2	9.14	116.9	46.42	5.8	7.95	
069	7/10/18 7:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	18.62	30.1	9.34	119.5	46.29	3.6	8.03	2.4
069	7/10/18 7:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.7	0	0	0	16.87	30.82	9.15	113.8	47.28	6.7	8	
069	7/11/18 7:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	18.94	27.32	8.36	105.9	42.43	4.9	7.89	1.5
069	7/11/18 7:48 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.19	0.19	0.19	16.46	30.95	8.25	101.8	47.48	4.9	7.86	
069	7/17/18 7:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	2.68	2.68	2.69	20.59	29.44	9.67	127.9	45.38		7.95	1.2
069	7/17/18 7:38 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	2.68	2.68	2.69	17.87	30.71	8.56	108.4	47.13		7.84	
069	7/30/18 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	19.42	29.8	9.26	120.1	45.87	12.7	7.99	
069	7/31/18 7:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20.45	28.56	9.62	126.3	44.16	7.9	8.02	
069	8/13/18 7:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.29	1.67	2.06	20.58	14.05	7.52	90.9	23.19		6.49	
069	8/14/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.3	1.68	21.77	11.04	6.93	84.2	18.59		6.74	
069	8/14/18 8:05 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.01	0.3	1.68	18.85	28.09	5.85	74.3	43.5		6.66	
069	8/15/18 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	0.3	19.78	24.55	6.42	81.3	38.52	5.5	7.69	1.8
069	8/15/18 7:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.01	0.3	18.16	29.04	5.44	68.6	44.82	8.3	7.64	
069	8/16/18 9:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	19.99	27.67	6.33	81.9	42.91	4.8	7.23	
069	8/17/18 7:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.2	0.2	0.2	20.54	18.85	8.07	100.2	30.32	4.9	7.91	
069	9/10/18 7:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.76	0.76	0.76	18.32	28.44	7.41	93.3	43.99		6.52	
069	9/10/18 7:34 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.76	0.76	0.76	18.45	28.68	7.05	89.2	44.32		6.81	
069	9/11/18 7:53 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.53	1.29	1.29	19.2	19.8	6.03	73.4	31.69	4.4	7.46	
069	9/12/18 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.26	0.79	1.55	20.19	20.99	7.39	92.3	33.43	7.1	7.88	1.1
069	9/12/18 8:20 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0.26	0.79	1.55	19.44	30.47	6.31	82.2	46.79	6.6	7.76	
069	9/13/18 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.44	0.7	1.23	19.6	20.39	6.9	85	32.55	2.9	7.51	
069	9/14/18 7:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.44	0.7	19.95	22.58	5.99	75.2	35.72	2.8	7.42	
069	9/14/18 7:41 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.44	0.7	19.66	28.52	4.71	60.8	44.09	5.7	7.48	
069	9/26/18 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.28	1.52	1.52	18.57	16.02	7.7	90.6	26.12		6.26	
069	9/26/18 8:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.28	1.52	1.52	18.32	28.73	6	75.8	44.39		6.45	
069	9/27/18 7:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.33	1.57	18.75	15.44	7.11	83.6	25.25	7	7.45	
069	9/27/18 7:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.05	0.33	1.57	18.46	27	6.11	76.6	41.98	7.7	7.37	
069	9/28/18 7:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.35	0.4	0.68	18.19	14.69	8.07	93.5	24.13		6.59	
069	10/22/18 7:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.03	0.03	12.85	30.29	8.29	94.8	46.68	0.5		
069	10/22/18 7:34 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	0.03	0.03	13.66	30.95	7.65	89.3	47.56	0.9		
069	10/23/18 7:39 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.41	0.41	0.44	9.99	23.75	8.57	88.3	37.6		7.16	
069	10/23/18 7:39 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.41	0.41	0.44	13.05	30.62	7.91	90.9	47.13		7.15	
069	10/24/18 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.45	0.45	11.38	23.47	8.95	95	37.13			
069	10/24/18 8:05 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.04	0.45	0.45	13.35	31.09	8.1	94	47.76			
137	1/16/18 10:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	2.37	25.71	11.44	99.6	41.39	3.9	7.8	1.1
137	1/16/18 10:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.2	0	0	0	1.1	31.45	10.71	93.9	50.09	3.9	7.75	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
137	1/31/18 10:50 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.15	0.15	1.73	29.45	11.02	96.9	47	2.3	8.39	2.1
137	1/31/18 10:50 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	15	0	0.15	0.15	2.25	31.01	10.48	94.3	49.14	8.9	8.3	1
137	2/6/18 10:43 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.36	0.65								
137	2/6/18 10:43 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.7	0	0.36	0.65								
137	2/20/18 10:37 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.07	0.42	5.43	22.16	11	100.9	35.69	0.9	7.98	2.5
137	2/20/18 10:37 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.3	0.01	0.07	0.42	2.76	31.06	10.33	94.3	49.07	0.9	8.06	
137	3/9/18 10:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.71	1.26	4.57	26.59	10.64	98.5	42.27	4.2	7.98	1.4
137	3/9/18 10:31 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.5	0	0.71	1.26	4.47	30.78	9.9	94	48.3	6	7.97	
137	3/19/18 10:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	3.51	27.66	10.49	95.3	44.01	2.4	7.95	2
137	3/19/18 10:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.4	0	0	0	3.58	31.36	10	93.3	49.32	6.8	7.98	
137	4/3/18 9:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.47	0.58	0.58	5.79	20.05	10.92	99.7	32.54	5.6	8.01	2.6
137	4/3/18 9:56 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11	0.47	0.58	0.58	4.62	31.22	9.89	94.5	48.91	6.5	7.96	
137	5/2/18 9:41 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.2	10.66	22.29	10.71	111	35.46	7.5	8.13	2.8
137	5/2/18 9:41 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	0	0	0.2	7.22	30.39	10.41	105.2	47.32	9.8	8.07	
137	5/14/18 9:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.21	12.73	22.52	9.89	107.4	35.71	3.6	8.06	2.3
137	5/14/18 9:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.6	0	0	0.21	9.45	30.67	9.1	97	47.47	8.5	8.02	
137	6/11/18 9:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	17.43	27.8	9.06	111.8	43.1	3	8.07	2.2
137	6/11/18 9:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.5	0	0	0	14.89	29.96	7.82	93	46.15	3.9	7.81	
137	6/18/18 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.13	0.13	16.72	29.49	9.38	115.4	45.45	5.2	8.02	1.8
137	6/18/18 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	9.6	0.13	0.13	0.13	12.49	30.67	7.98	90.7	47.23	9.1	7.82	
137	7/12/18 9:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.19	0.19	18.83	30.22	9.47	121.8	46.45	2.8	7.88	2.4
137	7/12/18 9:38 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	14.8	0	0.19	0.19	15.14	31.37	7.98	96.2	48.09	5.6	7.75	
137	7/23/18 9:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.03	0.2	0.2	22.72	20.72	9.72	127.1	33.09	3.8	8.14	1.5
137	7/23/18 9:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.6	0.03	0.2	0.2	17.69	30.82	6.86	86.6	47.29	4.3	7.69	
137	8/2/18 9:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	21.79	28.82	8.88	119.6	44.54	3.3	8.02	1.7
137	8/2/18 9:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0	0	0	16.57	31.23	6.51	80.7	47.87	8	7.69	
137	8/23/18 9:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.5	0.5	19.85	27.38	6.97	89.9	42.51	7.7	7.75	2
137	8/23/18 9:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13	0	0.5	0.5	18.68	29.97	4.72	60.4	46.11	6.5	7.56	
137	9/6/18 9:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.03	0.03	0.03	22.59	29.8	7.75	106.6	45.92	3.6	7.79	2.5
137	9/6/18 9:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.4	0.03	0.03	0.03	19.64	30.83	5.92	77.6	47.3	5.6	7.65	
137	9/25/18 9:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.24	1.24	1.24	17.54	22.69	7.44	89.3	35.86	3.9	7.83	2.4
137	9/25/18 9:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	1.24	1.24	1.24	19.06	30.54	5.17	67	46.89	12.6	7.64	
137	10/4/18 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.21	0.5	17.39	20.37	7.59	89.4	32.52	4.5	7.77	2.2
137	10/4/18 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0	0.21	0.5	17.28	30.29	6.34	79.2	46.56	9.2	7.63	
137	10/25/18 9:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.45	12.29	30.68	8.62	97.6	47.25	5.3	7.71	2.5
137	10/25/18 9:17 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.7	0	0.04	0.45	12.13	31.11	7.8	88.3	47.86	8.2	7.71	
137	11/9/18 10:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.1	1.1	1.1	9.88	21.66	8.8	89.3	34.59	2	7.83	2.3
137	11/9/18 10:33 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.9	1.1	1.1	1.1	10.82	30.7	7.48	82.1	47.38	3.2	7.88	
137	11/28/18 10:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.46	1.33	6.01	16.33	10.54	94.4	26.93	4.5	8.02	1
137	11/28/18 10:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.9	0	0.46	1.33	6.64	30.16	9.22	91.8	47.07	3.8	7.8	
137	12/6/18 10:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	5.92	27	9.99	95.8	42.67	1.1	8.05	2.3
137	12/6/18 10:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.1	0	0	0	6.75	30.1	9.31	92.9	46.97	2.1	8.01	
137	12/19/18 10:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.02	0.06	3.85	29.29	10.79	99.9	46.3	1.1	8.01	1
137	12/19/18 10:44 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.7	0	0.02	0.06	4.94	30.92	9.93	95.5	48.42	1.4	8.02	



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